

Index of Papers Published in AIAA Journal

Volume 4—January through December 1966

Issue	Pages	Issue	Pages
January	1-192	July	1153-1312
February	193-384	August	1313-1504
March	385-576	September	1505-1696
April	577-768	October	1697-1888
May	769-960	November	1889-2080
June	961-1152	December	2081-2272

TN, TC, and SA indicate Technical Note, Technical Comment, and Survey Article, respectively.

AUTHORS

Abbott, Michael (see Moretti, Gino)	1233	Barnard, A. Johannes (see Ahlborn, Boye)	1838
Ablow, C. M. (see Parks, Jean M.)	193	Barnes, John W. and Tang, Homer H. Strong and weak interaction parameters for turbulent flow (TN).....	193
Abu-Romia, M. M. (see Tien, C. L.)	193	Baronti, Paolo O. and Libby, Paul A. Velocity profiles in turbulent compressible boundary layers.....	9
Achenbach, J. D. Axial shear vibrations of a cylinder of decreasing thickness.....	193	Barrett, M. J. Some techniques applicable to the shielding of nuclear particles from space.....	815
Adams, Richard H. (see Alpinieri, L. J.)	193	Barzelay, Martin E. Continuum radiation from partially ionized argon.....	1112
Adarkar, D. B. Comment on "Simplified solutions for ablation in a finite slab" (TC).....	2246	Batchelder, Richard A. Some aids to convergence from crude initial estimates (TN).....	1287
— and Hartsook, L. B. An integral approach to transient charring ablator problems (TN).....	384	Bateman, Richard E., Benezra, Joseph N., and Placek, Frank J. Lunar satellite orbit determination by a classical binary star method.....	392
Adcock, Brian D. Equilibrium properties of argon (TC).....	2249	Batterman, Steven C. Axisymmetric buckling of a compressed cylindrical shell and an integral relation (TN).....	2255
— On the stability of an argon plasmajet (TN).....	934	— and Lee, Lawrence, H. N. Effect of modes on plastic buckling of compressed cylindrical shells (TC).....	1662
Agnone, A. (see Martellucci, A.)	1136	Bauer, Helmut F. Nonlinear mechanical model for the description of propellant sloshing.....	392
Agosta, Vito D. (see Hammer, Sanford S.)	2068	Bauer, R. C. An analysis of two-dimensional laminar and turbulent compressible mixing.....	2229
— Shock wave interaction with a burning solid propellant (TN).....	2040	Baxter, Bruce E. (see Arthur, Paul D.)	2218
Ahlborn, Boye and Barnard, A. Johannes. Velocity measurement by Doppler effect (TN).....	1668	Beaton, R. H., Saiva, G., Archer, R. D., and Bryant, R. A. A. Direct diabatic hydraulics analogy (TN).....	1622
Aihara, Yasuhiko. Surface distortion of the molten layer in the axisymmetric stagnation region (TN).....	134	Becker, Herbert and Gerard, George. A failure law for filamentary composites (TN).....	1049
Albacete, Lorenzo M. Boundary layer over a slender parabola of revolution with fluid injection (TN).....	1865	Beckstead, M. W., Ryan, N. W., and Baer, A. D. Nonacoustic instability of composite propellant combustion.....	1378
Alford, M. W. and Lear, C. W. A computational method for the optimization of multistage ballistic systems.....	865	Bear, Ferdinand P. and Ravera, Robert H. Effect of spacewise variations in a random load field on the response of a linear system.....	1882
Almroth, B. O. Influence of edge conditions on the stability of axially compressed cylindrical shells.....	2061	BenDaniel, D. H. and Hurwitz, H., Jr. Acceleration instability of a vapor-liquid metal interface with longitudinal magnetic field.....	367
— (see Stuhlmacher, C.)	1436	Benezra, Joseph N. (see Bateman, Richard E.)	2190
Alpinieri, L. J. and Adams, Richard H. Flow separation due to jet pluming (TN).....	831	Berkowitz, Harvey M. and Bleich, Hans H. Axial impact of an elastic right conical membrane shell.....	495
Anderson, Melvin S. (see Bohon, Herman L.)	1830	Bethel, Howard E. Comments on "Approximate solution of second-order boundary-layer equations" (TC).....	55
Anderson, William J. Oscillatory pressures in an idealized boundary layer with application to cylinder flutter.....	2226	Bethke, George W. (see Miller, David B.)	1118
Archer, R. D. (see Beaton, R. H.)	1063	Bhattacharjee, A. (see Levine, S. H.)	367
Armstrong, J. F., George, D. W., and Messerle, H. K. Electrode current saturation in MHD ducts (TN).....	1111	Bhattacharya, R. N. Solidification principle for nonuniformly spinning rotors mounted on a moving vehicle (TN).....	547
Arreesty, Jerome and Davis, Stephen H. Inviscid cone flows with surface mass transfer (TN).....	761	Bhutani, O. P. General study of plane steady flows in nonequilibrium magnetogasdynamics (TN).....	2054
Aronowitz, L. (see Loeffler, A. L., Jr.)	72	Bielkowicz, Peter. Ground tracks of earth-period (24-hr) satellites	2231
Arpacı, Vedat S. (see Farm, Charles, L. S.)	1063	Biennik, M. P., Fan, T. C., and Leckman, L. M. Dynamic stability of cylindrical shells.....	1053
Arthur, Paul D. and Baxter, Bruce E. Approximate atmospheric entry trajectories on a cylindrical planet (TN).....	1063	Bird, G. A. Aerodynamic properties of some simple bodies in the hypersonic transition regime.....	1137
Ashby, D. E. T. F., Liebing, L., Larson, A. V., and Gooding, T. J. Quasi-steady-state pulsed plasma thrusters.....	72	Birkeland, Richard C. (see Cramers, Clifford J.)	544
Ault, Robert M. (see Lackman, Leslie M.)	1691	Blankenship, Victor D. (see Chung, Paul M.)	1477
Avery, W. H. (see Heidelbach, R. G.)	72	— and Merritt, David L. A note on experimental and theoretical comparisons of conical shock-shock interactions (TN).....	1477
Azzi, Victor D. (see Tsai, Stephen W.)	72	Bleich, Hans H. (see Berkowitz, Harvey M.)	1477
Bach, Gale R. (see Morris, James C.)	72	Bllick, E. F. and Francis, J. E. Spherically blunted cone pressure distributions (TN).....	1477
Back, L. H. and Cuffel, R. F. Detection of oblique shocks in a conical nozzle with a circular-arc throat (TN).....	72	Blum, Robert E. and Fulton, Robert E. A modification of Potters' method for solving eigenvalue problems involving tridiagonal matrices (TN).....	1477
— and Massier, P. F. and Cuffel, R. F. Some observations on reduction of turbulent boundary-layer heat transfer in nozzles (TN).....	72	Blumenthal, Jack L., Santy, Myrrl J., and Burns, Eugene A. Kinetic studies of high-temperature carbon-silica reactions in charred silica-reinforced phenolic resins.....	1477
Baier, A. D. (see Keller, J. A.)	72	Bluston, H. S. An experimental study of jet turbulent mixing at subsonic-supersonic speeds (TN).....	1477
— (see Beckstead, M. W.)	72	Bobco, R. P. Radiation from conical surfaces with nonuniform radiosities (TN).....	1477
Bailie, J. A. (see MacNeal, R. H.)	72	Bogdan, Leonard. Measurement of the thermal parameter $(\rho)e^{k^2/2}$ for clear fused quartz (TN).....	1477
Baker, E. H. and Herrmann, G. Vibrations of orthotropic cylindrical sandwich shells under initial stress.....	72	2258	1477
Baldwin, Lionel V. (see Kuo, Yung-huang)	72		
Ball, Henry W. Driver gas detection in a shock tunnel (TN).....	72		
Ball, K. O. W. Comment on "Review of theoretical investigations on effect of heat transfer on laminar separation" (TC).....	72		
Ball, R. E. (see Karlsson, T.)	72		
Barba, P. M. (see Kane, T. R.)	72		
Barber, Edward A. Some experiments on delta wings in hypersonic flow.....	72		
Barkan, P. and Whitman, A. M. Stagnation pressure measurement in a current-carrying plasma (TN).....	72		

Index of Papers Published in AIAA Journal

Volume 4—January through December 1966

Issue	Pages	Issue	Pages
January	1-192	July	1153-1312
February	193-384	August	1313-1504
March	385-576	September	1505-1696
April	577-768	October	1697-1888
May	769-960	November	1889-2080
June	961-1152	December	2081-2272

TN, TC, and SA indicate Technical Note, Technical Comment, and Survey Article, respectively.

AUTHORS

Abbott, Michael (see Moretti, Gino)	1233	Barnard, A. Johannes (see Ahlborn, Boye)	1838
Ablow, C. M. (see Parks, Jean M.)	193	Barnes, John W. and Tang, Homer H. Strong and weak interaction parameters for turbulent flow (TN).....	193
Abu-Romia, M. M. (see Tien, C. L.)	193	Baronti, Paolo O. and Libby, Paul A. Velocity profiles in turbulent compressible boundary layers.....	9
Achenbach, J. D. Axial shear vibrations of a cylinder of decreasing thickness.....	193	Barrett, M. J. Some techniques applicable to the shielding of nuclear particles from space.....	815
Adams, Richard H. (see Alpinieri, L. J.)	193	Barzelay, Martin E. Continuum radiation from partially ionized argon.....	1112
Adarkar, D. B. Comment on "Simplified solutions for ablation in a finite slab" (TC).....	2246	Batchelder, Richard A. Some aids to convergence from crude initial estimates (TN).....	1287
— and Hartsook, L. B. An integral approach to transient charring ablator problems (TN).....	384	Bateman, Richard E., Benezra, Joseph N., and Placek, Frank J. Lunar satellite orbit determination by a classical binary star method.....	392
Adcock, Brian D. Equilibrium properties of argon (TC).....	2249	Batterman, Steven C. Axisymmetric buckling of a compressed cylindrical shell and an integral relation (TN).....	2255
— On the stability of an argon plasmajet (TN).....	934	— and Lee, Lawrence, H. N. Effect of modes on plastic buckling of compressed cylindrical shells (TC).....	1662
Agnone, A. (see Martellucci, A.)	1136	Bauer, Helmut F. Nonlinear mechanical model for the description of propellant sloshing.....	392
Agosta, Vito D. (see Hammer, Sanford S.)	2068	Bauer, R. C. An analysis of two-dimensional laminar and turbulent compressible mixing.....	2229
— Shock wave interaction with a burning solid propellant (TN).....	2040	Baxter, Bruce E. (see Arthur, Paul D.)	2218
Ahlborn, Boye and Barnard, A. Johannes. Velocity measurement by Doppler effect (TN).....	1668	Beaton, R. H., Saiva, G., Archer, R. D., and Bryant, R. A. A. Direct diabatic hydraulics analogy (TN).....	1622
Aihara, Yasuhiko. Surface distortion of the molten layer in the axisymmetric stagnation region (TN).....	134	Becker, Herbert and Gerard, George. A failure law for filamentary composites (TN).....	1049
Albacete, Lorenzo M. Boundary layer over a slender parabola of revolution with fluid injection (TN).....	1865	Beckstead, M. W., Ryan, N. W., and Baer, A. D. Nonacoustic instability of composite propellant combustion.....	1378
Alford, M. W. and Lear, C. W. A computational method for the optimization of multistage ballistic systems.....	865	Bear, Ferdinand P. and Ravera, Robert H. Effect of spacewise variations in a random load field on the response of a linear system.....	1882
Almroth, B. O. Influence of edge conditions on the stability of axially compressed cylindrical shells.....	2061	BenDaniel, D. H. and Hurwitz, H., Jr. Acceleration instability of a vapor-liquid metal interface with longitudinal magnetic field.....	367
— (see Stuhlmacher, C.)	1436	Benezra, Joseph N. (see Bateman, Richard E.)	2190
Alpinieri, L. J. and Adams, Richard H. Flow separation due to jet pluming (TN).....	831	Berkowitz, Harvey M. and Bleich, Hans H. Axial impact of an elastic right conical membrane shell.....	495
Anderson, Melvin S. (see Bohon, Herman L.)	1830	Bethel, Howard E. Comments on "Approximate solution of second-order boundary-layer equations" (TC).....	55
Anderson, William J. Oscillatory pressures in an idealized boundary layer with application to cylinder flutter.....	2226	Bethke, George W. (see Miller, David B.)	1118
Archer, R. D. (see Beaton, R. H.)	1063	Bhattacharjee, A. (see Levine, S. H.)	367
Armstrong, J. F., George, D. W., and Messerle, H. K. Electrode current saturation in MHD ducts (TN).....	1111	Bhattacharya, R. N. Solidification principle for nonuniformly spinning rotors mounted on a moving vehicle (TN).....	547
Arreesty, Jerome and Davis, Stephen H. Inviscid cone flows with surface mass transfer (TN).....	761	Bhutani, O. P. General study of plane steady flows in nonequilibrium magnetogasdynamics (TN).....	2054
Aronowitz, L. (see Loeffler, A. L., Jr.)	72	Bielskowicz, Peter. Ground tracks of earth-period (24-hr) satellites	2231
Arpacı, Vedat S. (see Farm, Charles, L. S.)	1063	Biensiek, M. P., Fan, T. C., and Leckman, L. M. Dynamic stability of cylindrical shells.....	1053
Arthur, Paul D. and Baxter, Bruce E. Approximate atmospheric entry trajectories on a cylindrical planet (TN).....	1063	Bird, G. A. Aerodynamic properties of some simple bodies in the hypersonic transition regime.....	1137
Ashby, D. E. T. F., Liebing, L., Larson, A. V., and Gooding, T. J. Quasi-steady-state pulsed plasma thrusters.....	72	Birkeland, Richard C. (see Cramers, Clifford J.)	544
Ault, Robert M. (see Lackman, Leslie M.)	1691	Blankenship, Victor D. (see Chung, Paul M.)	1477
Avery, W. H. (see Heidelbach, R. G.)	72	— and Merritt, David L. A note on experimental and theoretical comparisons of conical shock-shock interactions (TN).....	1477
Azzi, Victor D. (see Tsai, Stephen W.)	72	Bleich, Hans H. (see Berkowitz, Harvey M.)	1477
Bach, Gale R. (see Morris, James C.)	72	Bllick, E. F. and Francis, J. E. Spherically blunted cone pressure distributions (TN).....	1477
Back, L. H. and Cuffel, R. F. Detection of oblique shocks in a conical nozzle with a circular-arc throat (TN).....	72	Blum, Robert E. and Fulton, Robert E. A modification of Potters' method for solving eigenvalue problems involving tridiagonal matrices (TN).....	1477
— and Massier, P. F. and Cuffel, R. F. Some observations on reduction of turbulent boundary-layer heat transfer in nozzles (TN).....	72	Blumenthal, Jack L., Santy, Myrrl J., and Burns, Eugene A. Kinetic studies of high-temperature carbon-silica reactions in charred silica-reinforced phenolic resins.....	1477
Baier, A. D. (see Keller, J. A.)	72	Bluston, H. S. An experimental study of jet turbulent mixing at subsonic-supersonic speeds (TN).....	1477
— (see Beckstead, M. W.)	72	Bobco, R. P. Radiation from conical surfaces with nonuniform radiosities (TN).....	1477
Bailie, J. A. (see MacNeal, R. H.)	72	Bogdan, Leonard. Measurement of the thermal parameter $(\rho)e^{k^2/2}$ for clear fused quartz (TN).....	1477
Baker, E. H. and Herrmann, G. Vibrations of orthotropic cylindrical sandwich shells under initial stress.....	72	2258	1477
Baldwin, Lionel V. (see Kuo, Yung-huang)	72		
Ball, Henry W. Driver gas detection in a shock tunnel (TN).....	72		
Ball, K. O. W. Comment on "Review of theoretical investigations on effect of heat transfer on laminar separation" (TC).....	72		
Ball, R. E. (see Karlsson, T.)	72		
Barba, P. M. (see Kane, T. R.)	72		
Barber, Edward A. Some experiments on delta wings in hypersonic flow.....	72		
Barkan, P. and Whitman, A. M. Stagnation pressure measurement in a current-carrying plasma (TN).....	72		

Bogdonoff, S. M. (see McCroskey, W. J.)			
Bohachevsky, Ihor O. and Rubin, Ephraim L. A direct method for computation of nonequilibrium flows with detached shock waves	600		
— and Mates, Robert E. A direct method for calculation of the flow about an axisymmetric blunt body at angle of attack.....	776		
Bohren, Herman L. and Anderson, Melvin S. Role of boundary conditions on flutter of orthotropic panels.....	1241		
Bollinger, Loren E., Smith, Gary C., Tomazic, Frederick J., and Edse, Rudolph. Formation of detonation waves in flowing hydrogen-oxygen and methane-oxygen mixtures.....	1773		
Bonavito, N. L. Determination of mean elements for Vinti's satellite theory (TN).....	740		
Bonnema, J. P. (see Eastman, D. W.)			
Bornhorst, Walter J. (see Heiser, William H.)			
Bowen, F. (see Brockman, P.)			
Bradley, H. H., Jr. (see Price, E. W.)			
Brandmaier, H. E. Hall-current generator characteristics at constant electron temperature (TN).....	563		
Brauch, D. F., Buneman, O., and Wadhwa, R. P. Computer studies of plasma boundaries and lens effects created by immersed and withdrawn neutralizers.....	651		
Breakwell, J. V. and Rauch, H. E. Optimum guidance for a low thrust interplanetary vehicle.....	693		
Brockman, P., Hess, R., Bowen, F., and Jarrett, O. Diagnostic studies in a Hall accelerator at low exhaust pressure.....	1209		
Brokaw, Richard S. (see Svehla, Roger A.)			
Brown, Alan C. (see Smith, C. Edward)			
Brown, S. N. Hartree's solutions of the Falkner-Skan equation (TN)	2215		
Brownlee, W. G. and Kimball, G. H. Shock propagation in solid-propellant rocket combustors (TN).....	1132		
Bryant, R. A. A. (see Beaton, R. H.)			
Buchert, Kenneth P. Comment on "General instability and optimum design of grid-stiffened spherical domes" (TC).....	379		
Budiansky, Bernard (see Hutchinson, John W.)			
— and Hutchinson, John W. A survey of some buckling problems (SA).....	1505		
Bueche, J. F. (see McCauley, W. D.)			
Bunde, Gene W. (see Fletcher, Edward A.)			
Buneman, O. (see Brauch, D. F.)			
Bunt, E. A. (see Heidelbach, R. G.)			
Burggraf, Odus R. Choice of boundary conditions in viscous interaction theory (TC).....	1145		
— Asymptotic solution for the viscous radiating shock layer.....	1725		
Burns, Eugene A. (see Blumenthal, Jack L.)			
Burton, R. A. (see Carper, H. J.)			
Busch, C. W., Laderman, A. J., and Oppenheim, A. K. Pressure-wave generation in particle-fueled combustion systems: I. Parametric study.....	1638		
Bushnell, David. Influence coefficients for externally pressurized spherical shells (TN).....	1472		
Butler, Thomas Daniel. Numerical calculations of the transient loading of blunt obstacles by shocks in air.....	460		
Cadek, Frederick C. (see Gottschlich, Chad F.)			
Cambel, Ali Bulent (see Porter, R. W.)			
Cannon, T. C. (see Genin, J.)			
Cantey, D. E. (see Schapery, R. A.)			
Cantrall, R. H. (see McClure, F. T.)			
Capener, E. L., Chow, J. B., Dickinson, L. A., and Nanovich, J. E. Studies on ionization phenomena associated with solid-propellant rockets.....	1349		
Carbonell, J. R. (see Ungar, E. E.)			
Carden, William H. Heat transfer in nonequilibrium dissociated hypersonic flow with surface catalysis and second-order effects.....	1704		
Carley, C. T., Jr. and Smetana, Frederick O. Experiments on transition regime flow through a short tube with a bellmouth entry	47		
Carlson, Walter O. (see Shelton, Samuel V.)			
Carper, H. J. and Burton, R. A. A technique for micromanometry (TN).....	1688		
Cass, L. A. (see O'Connor, T. J.)			
Cassano, John M. Erratum: Effect of cone angle and bluntness ratio on base pressure (TC).....	384		
Celinski, Zdzislaw N. and Fischer, Fred W. Effect of electrode size in MHD generators with segmented electrodes.....	421		
Chandler, W. T. (see Walter, R. J.)			
Chang, C. C. (see Pao, H. P.)			
Chapman, Gary T. Total boundary-layer mass flow with mass transfer at the wall (TN).....	1549		
Charvat, F. R. (see Raymond L.)			
Chen, C. F. Second-order theory for airfoils in uniform shear flow.....	1712		
Chen, Karl K. (see Libby, Paul A.)			
Chen, Ning Hsing. Reply by author to A. Wortman (TC).....	760		
— Reply by author to D. B. Adarkar (TC).....	1496		
Chen, Tung (see Eschenroeder, Alan Q.)			
Cheng, H. K. and Gaitatzes, G. A. Use of the shock-layer approximation in the inverse hypersonic blunt body problem	406		
— (see Edwards, R. H.)			
Cheng, Ping. Dynamics of a radiating gas with application to flow over a wavy wall.....	238		
Chinnell, R. F. Radiation effects in the stagnation region (TN).....	1848		
Chiu, H. H. (see Lu, H. Y.)			
Chou, Pei Chi and Mortimer, Richard W. Numerical integration of flow equations along natural coordinates	26		
Chou, Y. S. (see Laitone, E. V.)			
Chow, W. L. Hypersonic slip flow past the leading edge of a flat plate (TN).....	2062		
Chown, J. B. (see Capener, E. L.)			
Christian, W. J. (see Wolf, L., Jr.)			
Christman, D. R. Target strength and hypervelocity impact (TN).....	1872		
Chu, C. K. and Gross, R. A. Alfvén waves and induction drag on long cylindrical satellites.....	2209		
Chu, Chong-Wei. An inverse problem of nonequilibrium duct flow (TN).....		719	
Chung, Paul M. and Blankenship, Victor D. Theory of electrostatic double probe comprised of two parallel plates.....		442	
— and Fendell, F. E. and Holt, J. F. Nonequilibrium anomalies in the development of diffusion flames.....		1020	
— and Blankenship, Victor D. Errata: "Theory of electrostatic double probe comprised of two parallel plates" (TC).....		1312	
Church, Charles H., Schlecht, Richard G., Liberman, Irving, and Swanson, Bruce W. Studies of highly radiative plasma using the wall-stabilized pulsed arc discharge.....		1947	
Citron, S. J. Reply by author to A. H. Nayefeh (TC).....		758	
Clark, Kenn E. (see Jahn, Robert G.)			
Clarkson, M. H., Field, R. E., Jr., and Keefer, D. R. Electron temperatures in several rf-generated plasmas (TN).....		546	
— (see Keefer, D. R.)			
Clavier, Philippe A. Comment on "Geomagnetically trapped radiation" (TC).....		384	
Clayton, B. R. (see Massey, B. S.)			
Coffey, Thomas C. and Williams, Ivan J. Stability analysis of multiloop, multirate sampled systems.....		2178	
Cohen, Gerald A. Reply by author to E. W. Ross, Jr. (TC).....		1312	
— Reply by author to A. Kalnins (TC).....		1498	
— Buckling of axially compressed cylindrical shells with ring-stiffened edges (TN).....		1859	
— Conservativeness of a normal pressure field acting on a shell (TC).....		1886	
Cohen, M. J. Comment on "Perturbation solutions for low-thrust rocket trajectories" (TC).....		573	
Cohen, Norman S. A correlation of the spread and decay of turbulent free jets (TN).....		926	
Cohz, Samuel N. (see Ladacki, Michael)			
Coleburn, Nathaniel L. Sensitivity of composite and double-base propellants to shock waves.....		521	
Coleman, Paul J., Jr. Interaction of the solar wind with the planets (SA).....		4	
Coles, Donald and Van Atta, Charles. Progress report on a digital experiment in spiral turbulence.....		1969	
Columbus, Richard L. (see Likins, Peter W.)			
Comfort, E. H. (see O'Connor, T. J.)			
Cook, W. J. and Felderman, E. J. Reduction of data from thin-film heat-transfer gages: A concise numerical technique (TN).....		561	
Cooper, David M. Equilibrium air radiation from shock layers at 11.3 km/sec.....		2125	
Coppa, Anthony P. Measurement of initial geometrical imperfections of cylindrical shells (TN).....		172	
Cox, R. L. (see Lowrance, D. T.)			
Crawford, Robert F. and Schwartz, David B. Reply by authors to K. P. Buchert (TC).....		379	
Cremer, Clifford J. and Birkebak, Richard C. Prediction of mode transition in an arc with a transpiration cooled anode (TN).....		167	
— (see Pfender, E.)			
— and Pfender, E. Measurements of the thermal radiation from an argon plasmajet (TN).....		376	
Cresci, Robert J. (see Sasman, Philip K.)			
— (see Zakay, Victor)			
Criscione, J. M., Volk, H. F., and Smith, A. W. Protection of graphite from oxidation at 2100°C.....		1791	
Crist, S., Sherman, P. M., and Glass, D. R. Study of the highly underexpanded sonic jet.....		68	
Crocce, L. and Sirignano, W. A. Effect of the transverse velocity component on the nonlinear behavior of short nozzles (TN).....		1428	
Crowe, C. T. and Willoughby, P. G. A mechanism for particle growth in a rocket nozzle (TN).....		1677	
Cuffel, R. F. (see Back, L. H.)			
Culick, F. E. C. Remarks on acoustic oscillations in a solid propellant rocket (TN).....		1120	
— Rotational axisymmetric mean flow and damping of acoustic waves in a solid propellant rocket (TN).....		1462	
Cunningham, Herbert J. Improved numerical procedure for harmonically deforming lifting surfaces from the supersonic kernel function method.....		1961	
Dabora, E. K. (see Kerkam, B. F.)			
David, T. S. (see Sichel, M.)			
Davids, Norman (see Mehta, Pravin K.)			
Davies, P. O. A. L. Turbulence structure in free shear layers.....		1971	
Davis, Robert E. Statistical dependence effect of normal mode response (TN).....		2033	
Davis, Stephen H. (see Aeresty, Jerome)			
Davis, W. R. Use of Λ -orthogonality for the inversion of state transition matrices (TN).....		1125	
Dehority, G. L. (see Price, E. W.)			
Deiwer, George S. (see Marvin, Joseph G.)			
DeLuzio, A. (see Stuhlmeyer, C.)			
Demiray, Anthony and Doughman, Ernest L. Langmuir probe diagnosis of turbulent plasmas.....		451	
Denham, Walter F. On numerical optimization with state variable inequality constraints (TN).....		550	
— and Pines, Samuel. Sequential estimation when measurement function nonlinearity is comparable to measurement error.....		1071	
— and Mohan, John J. Choosing trajectory parameters to maximize mission probability of success.....		1293	
Denison, D. R. (see Husmann, O. K.)			
Der, James J. Criteria for self-similar solutions to radiative flow (TN).....		1107	
Devan, Leroy. Reply by author to H. E. Bethel (TC).....		1883	
Devoto, R. S. Comments on "Transport properties of hydrogen" (TC).....		1149	
Dewey, C. Forbes, Jr. Interpretation of recovery-temperature measurements at low Reynolds numbers (TN).....		567	
Dharmarajan, S. N. (see Wilson, P. E.)			
Dickinson, L. A. (see Capener, E. L.)			
Dimmock, T. H. (see Levoy, M. M.)			

Divoky, D. (see Mayer, E.)			
Donaldson, Coleman duP. (see Snedecker, Richard S.)			
— and Gray, K. Evan. Theoretical and experimental investigation of the compressible free mixing of two dissimilar gases.	2017		
Dougal, Arwin A. (see Friedrich, Otto M., Jr.)			
Doughman, Ernest L. (see Demetriades, Anthony)			
Douglas, B. C. (see Francis, M. P.)			
Dow, Norris F. and Rosen, B. Walter. Structural efficiency of orthotropic cylindrical shells subjected to axial compression.			
Dowell, Earl H. and Widnall, Sheila E. Generalized aerodynamic forces on an oscillating cylindrical shell: Subsonic and supersonic flow.	481		
— Nonlinear oscillations of a fluttering plate.	607		
— Flutter of infinitely long plates and shells. Part I: Plate.	1267		
— Flutter of infinitely long plates and shells. Part II: Cylindrical shell.	1370		
— Comment on "On dynamic snap buckling of shallow arches" (TN).	1510		
Draper, James Stark. Infrared radiometry of turbulent flows.	1887		
Dreshfield, R. L. and House, R. D. Spectral normal emittance of single crystals (TN).	1597		
Dryer, Murray and Faye-Petersen, Rolf. Magnetogasdynamics boundary condition for a self-consistent solution to the closed magnetopause.			
D'Sa, E. R. Hydromagnetic wall jet (TN).	246		
Dugundji, John. Theoretical considerations of panel flutter at high supersonic Mach numbers.	537		
Dunn, William P. On material strengths of the hypervelocity impact problem (TN).	1257		
Dunwoody, N. T. Magnetohydrodynamic natural convection in a cylinder (TN).			
Eastman, D. W. and Bonnema, J. P. Flowfield of a highly under-expanded jet impinging on a surface (TN).			
Eckerman, Jerome (see Lien, Hwachii)			
Eckert, E. R. G. (see Goldstein, R. J.)			
Eckstein, Martin C. (see Shi, Yun Y.)			
Edelbaum, T. N. An asymptotic solution for optimum power limited orbit transfer (TN).	1491		
Edelman, Raymond and Rosenbaum, Harold. Finite rate evaporation of hydrogen in air (TN).			
Edse, Rudolph (see Bollinger, Loren E.)	163		
Edwards, D. K. (see Herold, L. M.)			
Edwards, R. H. and Cheng, H. K. Steady expansion of a gas into a vacuum (TN).	558		
Ellen, C. H. Panel instability caused by oblique shock waves.	680		
Elliott, David G. Direct current liquid-metal magnetohydrodynamic power generation.	627		
Elrod, Harold G., Jr. A class of nozzle-like exact solutions for compressible axisymmetric flow (TN).	1426		
Enright, John A. (see Gottschlich, Chad F.)			
Eraslan, Arav H. Duct-flow of conducting fluids under arbitrarily oriented applied magnetic fields.	620		
— Nonuniform conductivity MHD channel flow solution by B. G. Galerkin method.	1759		
Ericson, W. B. (see Loeffler, A. L., Jr.)			
Eschenroeder, Alan Q. and Chen, Tung. Ionization behind a sphere in hypersonic flight. Part I: Nearwake theory.	2149		
Escobal, P. R. Non-two-body reference orbit for Encke's method (TN).	930		
Escudier, M. P. (see Nicoll, W. B.)			
Etemad, Gahel A. Oxidation and mechanical performance of tungsten at high temperatures and high pressures.	1543		
Evans, Roger J. (see Pister, Karl S.)			
Fan, T. C. (see Bieniek, M. P.)			
— Further study on the dynamic stability of cylindrical shells (TN).			
Fanellop, T. K. Displacement thickness for boundary layers with surface mass transfer (TC).	2063		
— Reply to O. R. Burggraf (TC).	1142		
— Rapid calculations of boundary layers with coupled heat and mass transfer (TN).	1146		
Farn, Charles L. S. and Arpacı, Vedat S. On the numerical solution of unsteady, laminar boundary layers (TN).			
Faye-Petersen, Rolf (see Dryer, Murray)			
Fein, Harvey L. A theoretical model for predicting aluminum oxide particle size distributions in rocket exhausts.	92		
— Errata: "A theoretical model for predicting aluminum oxide particle size distributions in rocket exhausts" (TC).	960		
Felderman, E. J. (see Cook, W. J.)			
Feldt, Walter T. and Shulman, Yechiel. More results on solar influenced libration point motion (TC).	1501		
Fendell, F. E. (see Chung, Paul M.)			
Fiebig, Martin. On the motion within fluid gyroscopes.	667		
Field, R. E., Jr. (see Clarkson, M. H.)			
Fillo, John A. Approximate solution to the flat plate thermometer problem (TN).	1876		
Fink, Martin R. Hypersonic minimum-drag slender bodies of revolution.	1717		
Florini, Vittorio. Analytical solution for minimum length MHD accelerator with constant pressure (TN).	1098		
Fischer, Fred W. (see Celinski, Zdzislaw, N.)			
Fishman, Norman. Relationship between filler distribution and uniaxial rupture of composite solid propellants.	1044		
— (see Rosser, Willis A., Jr.)			
— Erratum: "Relationship between filler distribution and uniaxial rupture of composite solid propellants" (TC).	1888		
Fletcher, Edward A. and Bunde, Gene W. Gas evolution from a solid rocket propellant during depressurization to produce a quench (TN).	181		
— and Hiroki, Tsuyoshi. Gas evolution from solid propellants during pressure decay's (TN).	2222		
Fletcher, Robert F., Gerneth, Dal, and Goodman, Clark. Explosion of propellants (TN).	755		
Fogaroli, Richard P. and Sayyah, Alan R. Turbulent heat-transfer and skin-friction measurements on a porous cone with air injection at high Mach numbers (TN).		1116	
Fowler, W. T. (see Tapley, B. D.)			
Fox, Jay. A criterion for the transition between flow regimes in turbulent cavity flow (TN).		364	
Frakin, David B. (see Grey, Jerry)			
Francis, J. E. (see Blick, E. F.)			
Francis, John E. and Love, Tom J., Jr. Radiant heat-transfer analysis of isothermal diathermanous coatings on a conductor.		643	
Francis, M. P., Gedeon, G. S., and Douglas, B. C. Perturbations of repeating groundtrack satellite by tesseral harmonics in the gravitational potential.		1281	
Freudenthal, A. M. (see Henry, L. A.)			
Friedly, John C. and Petersen, Eugene E. Influence of combustion parameters on instability in solid propellant motors: Part I. Development of model and linear analysis.		1604	
— and Petersen, Eugene E. Influence of combustion parameters on instability in solid propellant motors. Part II: Nonlinear analysis.		1932	
Friedman, Morton H. Approximate closed solutions for detonation parameters in condensed explosives.		1182	
Friedrich, Otto M., Jr. and Dougal, Arwin A. Comparison of numerical calculations and measured space-time resolved plasma properties of a dynamical theta pinch.		2159	
Fulton, Robert E. (see Blum, Robert E.)			
Fung, Y. C. (see Olson, Mervyn D.)			
Gaitatzes, G. A. (see Cheng, H. K.)			
Gannon, R. E., Lazzio, T. S., Leigh, C. H., and Wolnik, S. J. Reply by authors to H. Mark and M. J. Mirtich (TC).		1500	
Garcia, Frank, Jr. Comment on the location of the center of pressure of a right circular cone using Newtonian impact theory (TC).		1150	
Gardner, J. A. (see Kelly, A. J.)			
Gardner, R. A., Uherka, K. L., and Lykoudis, P. S. Influence of a transverse magnetic field on forced convection liquid metal heat transfer.		848	
Gardner, R. E. (see Ormsbee, A. I.)			
Garvine, Richard W. Shock wave transport effects on hypersonic leading edge flow (TN).		1856	
Gebhart, Benjamin (see Polymeropoulos, Constantine E.)			
Gedeon, G. S. (see Francis, M. P.)			
Genin, H., Sweet, A. L., and Cannon, T. C. Equivalent vibrating systems (TN).		171	
George, D. W. (see Armstrong, J. F.)			
Gerard, George (see Milligan, Roger)			
— Comparative efficiencies of aerospace pressure vessel design concepts (SA).		2081	
— (see Becker, Herbert)			
Gerber, N. (see Spurk, J. H.)			
Gerneth, Dal (see Fletcher, Robert F.)			
Gibson, W. E. Stochastic model for turbulent, reacting wakes.		2001	
Gilbert, Ralph B. and Streblow, Roger A. Theory of detonation initiation behind reflected shock waves.		1777	
Glass, D. R. (see Crist, S.)			
Glass, J. C. (see Noeske, H. O.)			
Gloersen, Per, Gorowitz, Bernard, and Kenney, J. T. Energy efficiency trends in a coaxial gun plasma engine system.		436	
— (see Gorowitz, Bernard)			
— (see Karras, Thomas)			
Goldstein, Raymond (see Richmond, J. Kenneth)			
Richmond, J. Kenneth, and Oates, Gordon C. Electrical conductivity measurements in a Faraday accelerator (TN).		2043	
Goldstein, R. and Mastrup, F. N. Performance Measurements on a pulsed ablating thruster.		99	
Goldstein, R. J., Eckert, E. R. G., Tsou, F. K., and Haji-Sheikh, A. Film cooling with air and helium injection through a rearward-facing slot into a supersonic air flow.		981	
Golf, Linwood C. (see Starks, Douglas F.)			
Gollnick, A. F., Jr. Blunt body experiments with central injection (TN).		374	
Gooding, T. J. (see Ashby, D. E. T. F.)			
Goodman, Clark (see Fletcher, Robert F.)			
Gorowitz, Bernard (see Gloersen, Per)			
— and Karras, Thomas W. and Gloersen, Per. Performance of an electrically triggered repetitively pulsed coaxial plasma engine... (see Karras, Thomas)		1027	
Gottschlich, Chad F., Enright, John A., and Cadek, Frederick C. Measurement of the velocity distribution in a plasmajet (TN).		1085	
Grabowsky, W. R. (see Starner, K. E.)			
Graham, John D. (see Sherman, Bernard C.)			
Graves, Kenneth W. Ablation in a high shear environment.		853	
— Erratum: "Ablation in a high shear environment" (TC).		1696	
Gray, J. Don. On the existence of a pressure plateau in pure laminar separated flows (TC).		1503	
Gray, K. Evan (see Donaldson, Coleman duP.)			
Green, A. E. S. Electron impact cross sections for aeronomy (SA).		769	
Greene, Bruce E. Application of generalized constraints in the stiffness method of structural analysis.		1531	
Greif, Robert (see Johnson, Donald E.)			
— Inertia effects in the dynamic response of a cylindrical shell (TN).		1105	
Grey, Jerry, Sherman, Martin P., Williams, Peter M., and Frakin, David B. Laminar arcjet mixing and heat transfer: Theory and experiments.		986	
Gross, R. A. (see Chu, C. K.)			
Groth, Eric E. (see Pate, Samuel R.)			
Gundersen, Roy M. Nonisentropic two-dimensional MHD flow (TN).		1474	
Gunther, P. Asymptotically optimum two-impulse transfer from lunar orbit.		346	
Gupta, A. S. Hydromagnetic free convection flows from a horizontal plate (TN).		1439	
Gurney, J. P. General formulation of surface catalytic reactions (TN).		1299	

Hains, F. D. Acceleration of magnetogasdynamics source flow through the sonic velocity (TN).....	158	—Reply by author to E. H. Dowell (TC).....	1888
Haji-Sheikh, A. (see Goldstein, R. J.)		Hurwitz, H., Jr. (see BenDaniel, D. J.)	
Hall, J. Gordon (see Russo, Anthony L.)		Husmann, O. K., Jamba, D. M., and Venison, D. R. Influence of residual gas atmosphere in space chambers on neutral efflux and critical temperature of tungsten ionizers.....	273
Hama, Francis R. Estimation of the strength of lip shock (TN).....	166	Huston, Ronald L. Reply by author to J. G. Simmonds (TC).....	380
Hamilton, Janet V. (see Ladacki, Michael)		Hutchinson, John W. and Budiansky, Bernard. Dynamic buckling estimates.....	525
Hammer, Sanford S. and Agoata, Vito D. Wave slope-gas dynamic interactions in liquid rockets (TN).....	753	(see Budiansky, Bernard)	
Hanselman, Morris. Optimal free-space fixed-thrust trajectories using impulsive trajectories as starting iteratives.....	1077	Ibiricu, M. M. (see Price, E. W.)	
Hankins, L. D. Dynamic stresses in a thick-walled spherical shell of Voigt material (TN).....	2038	Imber, M. Thermal conductivity: A parameter in solid propellant burning.....	1610
Hansel, James G. and McAlevy, Robert F., III. Energetics and chemical kinetics of polystyrene surface degradation in inert and chemically reactive environments.....	841	Inami, S. Henry (see Rosser, William A., Jr.)	
Hanson, A. R. Vortex shedding from yawed cylinders (TN).....	738	Incropera, Frank and Leppert, George. Flow transition phenomena in a subsonic plasmajet (TN).....	1087
Hanson, R. K. and Watson R. Effects of dissociation rate magnitudes and relative collision efficiencies on relaxation profiles in diatomic gases (TN).....	749	Inger, George R. Blast wave impingement on a slender wedge moving at hypersonic speeds.....	428
Harden, Darrel G. Jet boundary determination of underexpanded two-phase carbon dioxide nozzle flow (TN).....	746	—Oblique blast impingement on slender hypersonic bodies (TN).....	1475
Harris, Clarence J. Comment on "Nonequilibrium effects on high-enthalpy expansion of air" (TC).....	1148	—A simple model shear flow with blowing (TN).....	1834
Hart, R. W. (see McClure, F. T.)		Irons, Bruce M. Comment on "Distributed mass matrix for plate element bending" (TC).....	189
Hartsook, L. B. (see Adarkar, D. B.)		—Engineering applications of numerical integration in stiffness methods (TN).....	
Hartunian, R. A. (see Thompson, W. P.)		Iyengar, K. T. Sundara Raja and Yogananda, C. V. Comparison of elasticity and shell theory solutions for long circular cylindrical shells.....	2035
—and Spencer, D. J. Visualization technique for massive blowing studies (TN).....		Jaffe, N. A. (see Smith, A. M. O.)	
Hashin, Zvi. Viscoelastic fiber reinforced materials.....	1305	—Effects of a transverse magnetic field and spanwise electric field on the boundary layer of a conducting fluid (TN).....	
Hassan, H. A. (see Smith, A. M.)	1411	Jahn, Robert G. and Clark, Kenn E. A large dielectric vacuum facility (TN).....	1843
Hawthorn, Robert D. and Nixon, Alan C. Shock tube ignition delay studies of endothermic fuels.....	513	Jahaman, W. E. and Hoffman, O. Analysis of short cylindrical shells of variable wall thickness (TN).....	1135
Headley, J. W. A simple calibration technique for skin friction balances (TN).....	1862	Jamba, D. M. (see Husmann, O. K.)	1686
Heer, E. Thermal excitations of thin elastic shells (TN).....	2234	Jarrett, O. (see Brockman, P.)	
Heidelbach, R. G., Avery, W. H., and Bunt, E. A. Ablating shield for plasma arc probe (TN).....	751	Jean, B. Experimental observations of optical radiation associated with hypervelocity impact (TN).....	
Heighway, J. E. (see Michels, C. J.)		Jen, Norman C. Reply by author to S. H. Lam (TC).....	378
Heisel, William H. and Bornhorst, Walter J. A modified Pohlhausen velocity profiled for MHD boundary-layer problems (TN).....	1139	Jenkins, Andrew H., Jenkins, Billy Z., and Johnson, Lloyd H. Transonic and low supersonic shock shape solutions (TN).....	1483
Hempel, Peter R. Representation of the Lagrangian multipliers for coast periods of optimum trajectories (TN).....	729	Jenkins, Billy Z. (see Jenkins, Andrew H.)	
Henderson, Arthur, Jr., Watson, Ralph D., and Wagner, Richard D., Jr. Fluid dynamic studies to $M = 41$ in helium.....	2117	Jedrinsky, Valdimir. Measurement of turbulence by pressure probes (TN).....	2072
Henry, L. A. and Freudenthal, A. M. Standing waves in a viscoelastic cylinder case-bonded to a thin shell.....	313	Jischke, Martin. Radiation coupled wedge flows (TN).....	1300
Henry, Roger P. Lorentz force maximization in continuous flow Hall current plasma accelerators (TN).....	165	Johansen, A. E. (see Michels, C. J.)	
Hermance, Clarke E. A model of composite propellant combustion including surface heterogeneity and heat generation.....	1629	Johns, D. J. Comments on "New methods in heat flow analysis" (TC).....	1151
Herold, L. M. and Edwards, D. K. Bidirectional reflectance characteristics of rough, sintered-metal, and wire-screen surface systems.	1802	Johnson, Donald E. Thermoelastic analysis of a solid cone.....	118
Herrmann, G. (see Baker, E. H.)		—and Greif, Robert. Dynamic response of a cylindrical shell: Two numerical methods.....	486
—(see Nemat-Nasser, S.)		—A proof of the stability of the Houblot method (TN).....	1450
Herzog, J. A. (see Mehan, R. L.)		Johnson, Kurt P. A plasma-core nuclear rocket utilizing a magnetohydrodynamically-driven vortex.....	635
Hess, R. (see Brockman, P.)		Johnson, Lloyd H. (see Jenkins, Andrew H.)	
Hill, D. E. (see Hopkins, D. F.)		Johnson, Robert H. Interactions within the laminar hypersonic boundary layer (TN).....	2245
Hill, W. G., Jr. (see Page, R. H.)		Jones, R. E. and Strome, D. R. Direct stiffness method analysis of shells of revolution utilizing curved elements.....	1519
Hiroki, Tsuyoshi (see Fletcher, Edward A.)		Jones, Robert E. Results of large vacuum facility tests of an MPD arc thruster (TN).....	1455
Hoff, Nicholas J., Madsen, Wayne A., and Mayers, J. Postbuckling equilibrium of axially compressed circular cylindrical shells.....	126	Jones, Robert M. Toward a new snap-through buckling criterion for axially compressed circular cylindrical shells.....	1526
Hoffman, Gilbert H. and Platzer, Max F. On supersonic flow past oscillating bodies of revolution (TN).....	370	Jordan, P. F. and Shelley, P. E. Stabilization of unstable two-point boundary value problems (TN).....	923
—(see Platzer, Max F.)		Kalnins, Arturs. Comments on the analysis of free vibration of rotationally symmetric shells (TC).....	1497
Hoffman, J. D. (see Lorenz, S. A.)		Kane, T. R. and Barba, P. M. Effects of energy dissipation on a spinning satellite.....	1391
Hoffmann, O. (see Jahaman, W. E.)		—and Rose, T. R. Gravity torque effects (TN).....	1454
Hoge, Harold J. and Segars, Ronald A. Reply by authors to W. C. Robison and J. R. Nelson (TC).....		—Real solutions of sets of nonlinear equations (TN).....	1880
—and Segars, Ronald A. An equation for the entrainment of ejectors (TN).....		Kaplan, Marshall H. Free-molecular diffuser.....	675
Holden, Michael S. Experimental studies of separated flows at hypersonic speeds. Part I: Separated flows over axisymmetric spiked bodies.....		Kapur, Kanwar K. Prediction of plate vibrations using a consistent mass matrix (TN).....	565
—Experimental studies of separated flows at hypersonic speeds. Part II: Two-dimensional wedge separated flow studies.....		Karamcheti, Krishnamurti (see Rasmussen, Maurice L.)	
Holt, J. F. (see Chung, Paul M.)		Karlsson, T. and Ball, R. E. Exact plane strain vibrations of composite hollow cylinders: Comparison with approximate theories (TN).....	
Hoover, William W. and Zaslavsky, Elaine G. Reciprocity theorem for systems with gyroscopic coupling (TN).....		Karras, Thomas W. (see Gorowitz, Bernard)	179
Hooley, R. F. (see Khanna, J.)		—and Gorowitz, Bernard and Giesen, Per. Neutral mass density measurements in a repetitively pulsed coaxial plasma accelerator.....	1366
Hopkins, D. F. and Hill, D. E. Effect of small radius of curvature on transonic flow in axisymmetric nozzles.....		Kastner, S. O. and Wolff, C. L. Earth as an occulting disk for study of solar EUV emission heights (TN).....	1096
Hopkins, Edward J. and Keener, Earl R. Comments on "Calibration of Preston tubes in supersonic flow" (TC).....		Keeler, D. R. (see Clarkson, M. H.)	
Hough, Ralph L. Pyrolytic titanium diboride filaments for composites.....		—Clarkson, M. H., and Mathews, B. E. Probe measurements in an electrodeless discharge (TN).....	1850
—(see Stark, Douglas F.)		Keeler, Earl R. (see Hopkins, Edward J.)	
House, R. D. (see Dredfield, R. L.)		Keller, J. A., Baer, A. D., and Ryan, N. W. Ignition of ammonium perchlorate composite propellants by convective heating.....	1358
Hua, Henry Tao-Sze. Equivalence of secondary injection to a blunt body in supersonic flow (TN).....		Kelly, A. J., Nerheim, N. M., and Gardner, J. A. Electron density and temperature measurements in the exhaust of an MPD source.....	291
Hubbard, Edward W. Approximate calculation of highly underexpanded jets (TN).....		Kempner, Joseph (see Vafakos, William P.)	
Hugelmann, R. D. Errata: "Application of Pohlhausen's method to stagnation-point flow" (TC).....		Kendall, E. G., Slaughter, J. L., and Riley, W. C. A new class of hypercarbon carbide composites.....	900
Hughes, W. F. Magnetohydrodynamic potential flow over a cylinder with an axial magnetic field (TN).....		Kenney, J. T. (see Giesen, Per)	
Humphreys, John S. On dynamic snap buckling of shallow arches. —On the adequacy of energy criteria for dynamic buckling of arches (TN).....		Kerkam, B. F. and Dabora, E. K. Effect of water vapor on H_2O -detonations (TN).....	1101
—Experiments on dynamic plastic deformation of shallow circular arches (TN).....		Kerrebrock, Jack L. Segmented electrode losses in MHD generators with nonequilibrium ionization.....	1938
—and Sve, Charles. Dynamic buckling of cylinders under axial shock-tube loading (TN).....	1477	Kessel, P. G. and Schlack, A. L. Resonance of rods, strings, and torsion members due to cyclic moving loads (TN).....	1879

Ketter, D. J.	Addendum: "Coupled panel/cavity vibrations" (TC)	768
Kevorkian, J. (see Lagerstrom, P. A.)		
Khanna, J. and Hooley, R. F.	Comparison and evaluation of stiffness matrices.....	2105
Kimbell, G. H. (see Brownlee, W. G.)		
Kind, R. J. and Orlík-Rückemann, Kazimierz J.	Stability derivatives of sharp cones in viscous hypersonic flow (TN).....	1469
King, William S. (see Mirels, Harold)		
—Low-frequency, large-amplitude fluctuations of the laminar boundary layer.....	994	
Kishore, K. (see Rastogi, R. P.)		
Klosner, Jerome M. and Levine, Howard S.	Further comparison of elasticity and shell theory solutions.....	467
Knackstedt, Wilhelm F.	A mathematical model of the cyclic stress strain relationship.....	1822
Knox, Eugene C. (see Lewis, Clark H.)		
Kudson, J.	A V-gyro pair as a dual-rate sensor (TN).....	1449
Knystantas, Romas (see Lee, Benedict H. K.)		
—(see Lee, John H.)		
Komar, James J.	Skin-friction predictions in turbulent compressible flow (TN).....	1307
Korkar, K. D.	Comments on "Bow shock shape about a spherical nose" (TC).....	381
Kornecki, Aleksander	Comments on "Stresses about a circular hole in a cylindrical shell" (TC).....	765
Kotansky, Donald R.	The use of honeycomb for shear flow generation (TN).....	1490
Koval, Leslie R.	Note on the vibrational characteristics of thin-walled shells (TC).....	500
Kramer, Ray L. (see Smith, C. Edward)		
Kraus, H.	Thermally induced vibrations of thin nonshallow spherical shells.....	2166
Krawec, Roman	Radial density and temperature profiles at the ion cyclotron wave resonance point.....	
Krey, Rhoda U. (see Morris, James C.)		
Krupnick, A. C. (see Zerlaut, Gene A.)		
Kubota, Toshi (see Lewis, John E.)		
Kuby, W. C.	Experiments on hydrogen recombination in nozzle flows for the H ₂ /F ₂ system (TN).....	160
—Use of the method of integral relations for the determination of the convective heat flux to a re-entry body (TN).....	947	
Kuo, Yung-huang and Baldwin, Lionel V.	Diffusion and decay of turbulent elliptic wakes.....	1566
Lackman, Leslie M. (see Biemek, M. P.)		
—and Ault, Robert M.	Influence of plasticity correction factor in minimum weight analysis (TN).....	713
Ladacki, Michael	Silicon carbide in ablative chars (TN).....	1445
—Hamilton, Janet V., and Cohz, Samuel N.	Heat of pyrolysis of resin-silica-phenolic ablator.....	1798
Laderman, A. J. (see Busch, C. W.)		
—Detonation of hydrogen-oxygen mixtures in large vessels at low initial pressures.....	1784	
Lagerstrom, P. A. and Kevorkian, J.	Nonplanar earth-to-moon trajectories in the restricted three-body problem.....	149
—and Kevorkian, J.	Errata: "Nonplanar earth-to-moon trajectories in the restricted three-body problem" (TC).....	960
Laitone, E. V. and Chou, Y. S.	Reply by authors to R. J. Woodcock (TC).....	763
Lakshminikantham, C. (see Milligan, Roger)		
Lam, S. H.	Comments on "Satellite potential in an ionized atmosphere" (TC).....	378
Larson, A. V. (see Ashby, D. E. T. F.)		
Laszlo, T. S. (see Gannon, R. E.)		
Laurmann, J. A.	Simplified equations for hypersonic viscous flow past slender bodies (TN).....	568
Lawver, B. R.	Some observations on the combustion of N ₂ H ₄ droplets.....	659
Lear, C. W. (see Alford, M. W.)		
Lee, Benedict H. K., Lee, John H., and Knystantas, Romas.	Transmission of detonation waves through orifices (TN).....	365
—(see Lee, John H.)		
Lee, C. C.	Gasdynamic structure of jets from plug nozzles (TN).....	1114
Lee, D. H. and Sheppard, L. M.	An approximate second-order wing theory (TN).....	1828
Lee, George	Hypersonic flow over a blunt flat plate with surface mass transfer (TN).....	2049
Lee, John H. (see Lee, Benedict H. K.)		
—Lee, Benedict H. K., and Knystantas, Romas.	Shock-flame interaction in a cylindrical chamber (TN).....	736
Lee, Lawrence H. N. (see Batterman, Steven C.)		
Lee, Richard H. C.	Radiative cooling of a uniform gas flow (TN).....	1846
Leigh, C. H. (see Gannon, R. E.)		
Lepper, R. (see Levine, S. H.)		
Leppert, George (see Incropora, Frank)		
Levine, Gerald M.	A method of orbital navigation using optical sightings to unknown landmarks.....	1928
Levine, Howard S. (see Klosner, Jerome M.)		
Levine, S. H., Bhattacharjee, A., and Lepper, R.	Forbidden regions produced by two parallel dipoles.....	654
Levý, M. M. and Dimmock, T. H.	Significance of nonequilibrium conductivity on plasma engine performance (TN).....	553
Leuellen, W. S., Ross, D. H., and Rosenzweig, M. L.	Binary diffusion in a confined vortex.....	396
—and Mirels, Harold	Optimum lifting bodies in hypersonic viscous flow (TN).....	1866
Levis, Clark H. and Knox, Eugene C.	A spherically blunted cone at angle of attack (TN).....	1110
—and Marchand, Ernest O., and Little, Herbert R.	Mass transfer and first-order boundary-layer effects on sharp cone drag. Part I: At supersonic conditions.....	1697
—and Marchand, Ernest O., and Little, Herbert R.	Mass transfer and first-order boundary-layer effects on sharp cone drag. Part II: At hypersonic conditions.....	1954
Lewis, John E. and Kubota, Toshi	Stanton tube calibration in a laminar boundary layer at Mach 6 (TN).....	2251
Li, T. Y.	Reply to T. K. Fannell (TC).....	1144
Libby, Paul A. (see Baronti, Paolo O.)		
—and Chen, Karl K.	Remarks on quasilinearization applied in boundary-layer calculations (TN).....	937
—Secondary flows associated with a supersonic corner region (TN).....		1130
Lieberman, Irving (see Church, Charles H.)		
Liebermann, Richard W. (see Morris, James C.)		
Liebling, L. (see Ashby, D. E. T. F.)		
Lien, Hiwachii	Erratum: "A single formula for the velocity distribution in the turbulent inner and outer boundary layers" (TC).....	192
—and Eckerman, Jerome	Interferometric analysis of density fluctuations in hypersonic turbulent wakes.....	1988
Likins, Peter W. and Columbus, Richard L.	Effects of eddy-current damping on satellite attitude stability (TN).....	1223
Lin, Shao-Chi	A bimodal approximation for reacting turbulent flows: I. Description of the model.....	202
—A bimodal approximation for reacting turbulent flows: II. Example of quasi-one-dimensional wake flow.....		210
Lin, Y. J. (see Ueng, C. E. S.)		
Little, Herbert R. (see Lewis, Clark H.)		
Lock, Malcolm H.	Snapping of a shallow sinusoidal arch under a step pressure load.....	1249
Locke, Edward V. and McCune, James	Growth rates for axial magneto-acoustic waves in a Hall generator.....	1748
Loeffler, A. L., Jr., Aronowitz, L., and Ericson, W. B.	Self-excited explosive-driven MHD generator (TN).....	942
Loh, W. H. T.	Errata: "Extension of second-order theory of entry mechanics to oscillatory entry solutions" (TC).....	1696
Lordi, John A. (see Russo, Anthony L.)		
Lorenz, S. A. and Hoffman, J. D.	Correlation of performance of conical and contoured nozzles for gas-particle flow (TN).....	169
Lorenz, George C. (see Woodruff, Lawrence W.)		
Lovberg, R. H.	Investigation of current-sheet microstructure.....	1215
Love, Tom J., Jr. (see Francis, John E.)		
Lowrance, D. T. and Cox, R. L.	Fundamental studies of the stability of thermal-control coatings.....	906
Lu, H. Y. and Chiu, H. H.	Dynamics of gases containing evaporable liquid droplets under a normal shock.....	1008
Lu, Pau-Chang	Comment on "Validity of integral methods in MHD boundary-layer analysis" (TC).....	1497
Lubow, Anthony G.	TELSTAR orbit prediction method-accuracy comparison with other orbit prediction methods.....	361
Luke, Keung P.	Comments on the work function of metal droplets (TC).....	382
Lusty, Arthur H., Jr. and Miele, Angelo	Bodies of maximum lift-to-drag ratio in hypersonic flow.....	2130
Lykoudis, Paul S.	A review of hypersonic wake studies (SA).....	577
—(see Gardner, R. A.)		
—(see Yu, C. P.)		
Lyman, Frederic A.	Maxwellization of electrons in a low-voltage, atmospheric pressure gas discharge (TN).....	1128
Lynn, Y. M.	Comment on "Magnetonhydrodynamic flow past a thin airfoil" (TC).....	189
Lyons, William C.	Comments on heat induced vibrations of elastic beams, plates, and shells (TC).....	1502
MacNeal, R. H., Winemiller, A. F., and Baillie, J. A.	Elastic stability of cylindrical shells reinforced by one or two frames and subjected to external radial pressure (TN).....	1431
Madsen, Wayne A. (see Hoff, Nicholas J.)		
Maimuth, N. D.	Hypersonic flow over a delta wing of moderate aspect ratio (TN).....	555
—Errata: "Hypersonic flow over a delta wing of moderate aspect ratio" (TC).....		1312
Marchand, Ernest O. (see Lewis, Clark H.)		
Mark, Herman (see Sommers, Ralph D.)		
—and Mirtich, Michael J.	Comments on "Effect of microparticle impact on the optical properties of metals" (TC).....	1499
—Sommers, Ralph D. and Mirtich, Michael J.	Effect on surface thermal properties of calibrated exposure to micrometeoroid environment.....	1811
Marshall, Billy W.	Oxidation and ablation characteristics of tantalum in a hyperthermal environment.....	1899
Marston, Charles H.	MHD accelerator performance for specified interaction parameter (TN).....	2078
Martellucci, A., Trucco, H., and Agnone, A.	Measurements of the turbulent near wake of a cone at Mach 6.....	385
Martin, Frederick H.	Closed-loop near-optimum steering for a class of space missions.....	1920
Martin, J. D. (see Robertson, J. M.)		
Marvin, Joseph G. and DeWitt, George S.	Convective heat transfer in planetary gases (TN).....	727
Marxman, Gerald A.	Comment on "Regression rates of metalized hybrid fuel systems" (TC).....	956
Massey, B. S. and Clayton, B. R.	Comment on "Extensions of the Falkner-Skan similar solutions to flows with surface curvature" (TC).....	1149
Massier, P. F. (see Back, L. H.)		
Mastrup, F. N. (see Goldstein, R.)		
Mates, Robert E. (see Bohachevsky, Ihor O.)		
Mathews, B. E. (see Keefer, D. R.)		
Matthiesen, R. B. (see Verette, Ralph M.)		
Mayer, E. and Divoky, D.	Correlation of intermittency with preferential transport of heat and chemical species in turbulent shear flows.....	1995
Mayers, J. (see Hoff, Nicholas J.)		
McAlevy, Robert F., III (see Hansel, James G.)		

- McBride, J. M. (see Reardon, F. H.)
 McCauley, W. D., Saydah, Alan R., and Bueche, J. F. Effect of spherical roughness on hypersonic boundary-layer transition..... 2142
 McClure, F. T., Cantrell, R. H., and Hart, R. W. Theoretical considerations relating to the effect of injector design on unstable burning of liquid propellant rocket motors..... 84
 McCroskey, W. J. and McDougall, J. G. Shock wave shapes on a sharp flat plate in rarefied hypersonic flow (TN)..... 184
 —Bogdonoff, S. M., and McDougall, J. G. An experimental model for the sharp flat plate in rarefied hypersonic flow..... 1580
 McCue, Gary A. A note concerning the effective emittance of certain grooved surfaces (TN)..... 721
 McCune, James (see Locke, Edward V.)
 McDonel, James D. (see Tabakoff, Widén)
 McDougall, J. G. (see McCroskey, W. J.)
 McElman, John A., Mikulas, Martin M., Jr., and Stein, Manuel. Static and dynamic effects of eccentric stiffening of plates and cylindrical shells..... 887
 McIntyre, John E. Neighboring optimal terminal control with discontinuous forcing functions..... 141
 McRuer, D. T. (see Stapleford, R. L.)
 Mehan, R. L., Sutton, W. H., and Herzog, J. A. A review of the methods of measuring the strength of whiskers and their role in reinforcing ductile metal matrices (SA)..... 1889
 Mehta, Pravin K. and Davids, Norman. A direct numerical analysis method for cylindrical and spherical elastic waves..... 112
 Meirovitch, L. and Wallace, F. B., Jr. On the effect of aerodynamic and gravitational torques on the attitude stability of satellites..... 2196
 Menard, W. A. (see Thomas, G. M.)
 Merritt, David L. (see Blankenship, Victor D.)
 Mescall, John. Numerical solutions of nonlinear equations for shells of revolution (TN)..... 2041
 Messerle, H. K. (see Armstrong, J. F.)
 Michels, C. J., Heighway, J. E., and Johansen, A. E. Analytical and experimental performance of capacitor powered coaxial plasma guns..... 823
 Miele, Angelo (see Lusty, Arthur H., Jr.)
 Mikesell, R. D. Length scale of separated turbulent boundary layers in compression corners (TN)..... 1482
 Mikulas, Martin M., Jr. (see McElman, John A.)
 Miles, John W. Newtonian flow over a stationary body in unsteady flow..... 38
 —and Mirels, H., and Wang, H. E. Time required for establishing detached bow shock (TN)..... 1127
 Miller, David B. and Bethke, George W. Cyclotron resonance thruster design techniques..... 835
 Miller, Eugene. Hybrid rocket combustion regression rate model (TN)..... 752
 Miller, John J. (see Wilson, Sam W., Jr.)
 Milligan, Mancil W. Low-density gas flow in long tubes (TN)..... 745
 Milligan, Roger, Gerard, George, and Lakshminathan, C. General instability of orthotropically stiffened cylinders under axial compression..... 1906
 Minardi, John. Effect of variations in the coefficient of thermal expansion upon thermal stress (TN)..... 542
 Mirels, Harold and Mullen, J. F. Errata: "Aerodynamic blast simulation in hypersonic tunnels" (TC).
 —and King, William S. Series solutions for shock-tube laminar boundary layer and test time..... 768
 —(see Miles, J. W.)
 —(see Lewellen, W. S.)
 Mirtich, Michael J. (see Mark, Herman)
 Mitchner, M. (see Schweitzer, S.)
 Mohan, John J. (see Denham, Walter F.)
 Moretti, Gino. Some comments about three-dimensional supersonic flow computations (TC)..... 1695
 —and Abbott, Michael. A time-dependent computational method for blunt body flows..... 2136
 Morris, James C., Bach, Gale R., Krey, Rhoda U., Liebermann, Richard W., and Yos, Jerryd M. Continuum radiated power for high-temperature air and its components..... 1223
 Morrisette, E. Leon. Effect of mass injection into a cavity on hypersonic boundary-layer transition (TN)..... 1488
 Mortimer, Richard W. (see Chou, Pei Chi)
 Moyer, H. Gardner. Necessary conditions for optimal single impulse transfer..... 1405
 Mullen, J. F. (see Mirels, Harold)
 Muntz, E. P. and Softley, E. J. A study of laminar near wakes..... 961
 Murphy, Charles H. Slender body estimates for two cubic aerodynamic damping moments (TN)..... 536
 Muzy, R. J. (see Wooldridge, C. E.)
 Myers, George H. Selection of data weights for determining orbits with biased sensors (TN)..... 705
 Myers, T. W. Approximation to the electrical conductivity of a magnetically balanced arc in transverse argon flow (TN)..... 1459
 Myint-U, T. Stability of axially compressed core-filled cylinders (TN)..... 552
 Na, Tsung Yen. Reply by author to A. N. Tifford (TC)..... 573
 Nanda, Kul Deepak. Nonequilibrium flow past an infinite corrugated cylinder (TN)..... 1457
 Nanovich, J. E. (see Capener, E. L.)
 Nash, J. F. Comments on "Review of recent developments in turbulent supersonic base flow" (TC)..... 574
 Navaratna, Dharendra R. Natural vibrations of deep spherical shells (TN)..... 2056
 —Computation of stress resultants in finite element analysis (TN)..... 2058
 —(see Stricklin, James A.)
 Nayfeh, Ali Hasan. Comments on "An analytic solution for entry into planetary atmospheres" (TC)..... 758
 —Oscillating two-phase flow through a rigid pipe (TN)..... 1868
 Nelson, James R. (see Robison, William C.)
 Nemat-Nasser, S., Prasad, S. N., and Herrmann, G. Destabilizing effect of velocity-dependent forces in nonconservative continuous systems..... 1276
 —and Herrmann, G. Adjoint systems in nonconservative problem of elastic stability (TN)..... 2221
 Neren, Robert M. An approximate analysis of thermal conduction and radiative transport in the stagnation-point shock layer (TN)..... 539
 —Atomic line radiation in equilibrium air (TN)..... 1485
 Nerheim, N. M. (see Kelly, A. J.)
 Neabit, Richard A. (see LeMay, Joseph L.)
 Nettleton, Michael Arthur. Heat transfer to particles in shock-heated gases (TN)..... 939
 Newton, R. A. Free vibrations of rocket nozzles (TN)..... 1303
 Nicoll, W. B. and Escudier, M. P. Empirical relationships between the shape factors H_2 and H_3 for uniform-density turbulent boundary layers and wall jets (TN)..... 940
 Nissel, Neil (see Vafakos, William P.)
 Nixon, Alan C. (see Hawthorn, Robert D.)
 Noeske, H. O. and Glass, J. C. Experimental investigation of bipropellant arcs (TN)..... 716
 Nunn, R. H. (see Ormsbee, A. I.)
 Oates, Gordon C. (see Goldstein, Raymond)
 Obremaki, H. J. (see Wolf, L. Jr.)
 O'Connor, T. J., Comfort, E. H., and Cass, L. A. Turbulent mixing of an axisymmetric jet of partially dissociated nitrogen with ambient air..... 2026
 Odén, J. T. Calculation of geometric stiffness matrices for complex structures (TN)..... 1480
 Ofse, D. B. Radiative cooling in transparent shock layers of wedges and cones..... 1734
 Olson, Mervyn D. and Fung, Y. C. Supersonic flutter of circular cylindrical shells subjected to internal pressure and axial compression..... 858
 Olson, N. Thomas and Smith, Harold P., Jr. Yield and angular distribution of cesium sputtered copper using a radioactive tracer technique..... 916
 Oppenheim, A. K. (see Busch, C. W.)
 Orlik-Rückemann, Kazimierz J. Stability derivatives of sharp wedges in viscous hypersonic flow..... 1001
 —(see Kind, R. J.)
 —Effect of wave reflections on the unsteady hypersonic flow over a wedge (TC)..... 1884
 Ormsbee, A. I., Gardner, R. E., Rott, N., and Nunn, R. H. Thrust magnitude control for a solid rocket by injection at the throat (TN)..... 1424
 Page, R. H. and Hill, W. G., Jr. Location of transition in a free jet region (TN)..... 944
 Palamara, Ronald D. Some considerations for a simplified orbiting general relativity experiment..... 1036
 Pallabazzer, Rodolfo. Magnetoplastic effect in non-Newtonian fluids (TN)..... 2064
 Pao, H. P. and Chang, C. C. Magnetohydrodynamic boundary layer between parallel streams of different magnetic fields and temperatures..... 1313
 Parks, Jean M., Ablow, C. M., and Wise, Henry. Temperature distribution within a particle during evaporation..... 1032
 Parks, P. C. A stability criterion for panel flutter via the second method of Liapunov (TN)..... 175
 Pasiuk, Lionel (see Perry, James C.)
 —(see Raat, Jan)
 Pate, Samuel R. and Groth, Eric E. Boundary-layer transition measurements on swept wings with supersonic leading edges (TN)..... 737
 Patrick, Richard M. and Schneiderman, Arthur M. Performance characteristics of a magnetic annular arc..... 283
 —(see Schneiderman, Arthur M.)
 Paul, B. Mohr's circle as a phasor transformation..... 2253
 Pearson, G. S. and Sutton, D. Ignition of composite propellant fuels by perchloric acid vapor (TC)..... 954
 Pearson, H. Comment on "Choked flow: A generalization of the concept and some experimental data" (TC)..... 1502
 Penfold, A. S. (see Seemann, G. R.)
 Penning, Francis A. (see Thurston, Gaylen A.)
 Perry, James C. and Pasiuk, Lionel. A comparison of solutions to a blunt body problem (TN)..... 1425
 Peskin, Richard L. and Wise, Henry. A theory for ignition and deflagration of fuel drops..... 1646
 Petersen, Eugene E. (see Friedly, John C.)
 Petrie, Stuart L. Density measurements with electron beams (TN)..... 1679
 Pfeiffer, G. G. A technique for optimal final value control of powered flight trajectories..... 352
 Pfender, E. and Cremer, C. J. Reply by authors to P. G. Simpkins (TC)..... 191
 —(see Cremer, C. J.)
 Pian, Theodore H. H. (see Stricklin, James A.)
 Pierce, David A., and Standish, E. Myles, Jr. Family of consecutive collision earth-to-moon trajectories (TN)..... 709
 Pines, Samuel (see Denham, Walter F.)
 Pister, Karl S. and Evans, Roger J. Stress analysis for elastic response of physically nonlinear solid propellants..... 1914
 Pitkin, Edward T. Integration with universal variables..... 531
 Placek, Frank J. (see Bateman, Richard E.)
 Platzer, Max F. (see Hoffman, Gilbert H.)
 —and Hoffman, Gilbert H. Supersonic quasi-slender body theory for slowly oscillating bodies (TN)..... 1693
 Polak, Arnold. Note on the solution of the force of slender delta wings (TN)..... 556
 Polymeropoulos, Constantine E. and Gebhart, Benjamin. Stability of free convection flow over a vertical uniform flux plate (TN)..... 2066
 Porter, R. W. and Cambel, Ali Bulent. Comment on "Magnetohydrodynamic-hypersonic viscous and inviscid flow near the stagnation point of a blunt body" (TC)..... 952
 Potter, J. Leith (see Whitfield, Jack D.)
 Powers, Sidney A. Asymptotic Mach numbers in a real gas (TC)..... 1886

- Prabhu, A. Incompressible wake flow in pressure gradient (TN)..... 925
 Prasad, S. N. (see Nemat-Nasser, S.)
 Price, C. F. (see Smoot, L. D.)
 Price, E. W., Bradley, H. H., Jr., Dehority, G. L., and Ibiricu, M. M. Theory of ignition of solid propellants (SA).....
 Pringle, Ralph, Jr. On the stability of a body with connected moving parts..... 1153
 Przemieniecki, J. S. Equivalent mass matrices for rectangular plates in bending (TN)..... 1395
 Psarouthakis, John. Thermionic energy conversion using barium plus cesium vapors..... 949
 —Errata: "Thermionic energy conversion using barium plus cesium vapors" (TC)..... 1201
 Raat, Jan and Pasik, Lionel. Rarefaction effects in hypersonic boundary layers (TN)..... 2080
 Radbill, John R. Computation of electrostatic probe characteristics by quasilinearization..... 2052
 Rasmussen, Maurice L. and Karamcheti, Krishnamurti. Viscous effects far downstream in a slowly expanding hypersonic nozzle..... 1195
 Rastogi, R. P. and Kishore, K. Mechanism of combustion of liquid rocket propellants: Aliphatic alcohols and mixed acid (TN)..... 807
 Rauch, H. E. (see Breakwell, J. V.)
 Ravera, Robert J. (see Beer, Ferdinand P.)
 Raymond, L. and Charvat, F. R. Tungsten single crystal sheet.....
 Reardon, F. H., McBride, J. M., and Smith, A. J., Jr. Effect of injection distribution on combustion stability..... 895
 Revell, James D. and Rodden, William P. Remarks on numerical solutions of the unsteady lifting surface problem (TN)..... 506
 Richards, B. E. and Stollery, J. L. Further experiments on transition reversal at hypersonic speeds (TN)..... 156
 Richmond, J. Kenneth and Goldstein, Raymond. Fully developed turbulent supersonic flow in a rectangular channel..... 2224
 —(see Goldstein, Raymond)
 Riley, M. B. (see Whitney, J. M.)
 Riley, W. C. (see Kendall, E. G.)
 Robbins, Howard M. An analytical study of the impulsive approximation..... 1331
 Robe, T. R. (see Kane, T. R.)
 Roberts, Richard. On a Green's function for plate bending (TN).....
 Robertson, J. M. and Martin, J. D. Turbulence structure near rough surfaces (TN)..... 1417
 Robison, William C. and Nelson, James R. Comments on "Choked flow: A generalization of the concept and some experimental data" (TC)..... 178
 Rodden, William P. (see Revell, James D.)
 Rogers, P. W. (see Wilson, P. E.)
 Rohatgi, Vijay K. Interaction of high-density plasma with hot cathode (TN)..... 1852
 Romig, Mary F. Errata: "Physics of meteor entry" (TC)..... 191
 Rosen, B. Walter (see Dow, Norris F.)
 Rosenbaum, Harold (see Edelman, Raymond)
 —Turbulent compressible boundary layer on a flat plate with heat transfer and mass diffusion.....
 Rosensweig, Ronald E. Fluidmagnetic buoyancy..... 1548
 Rosenzweig, M. L. (see Lewellen, W. S.)
 Roshko, Anatol and Thomke, Gerald J. Observations of turbulent reattachment behind an axisymmetric downstream-facing step in supersonic flow..... 1751
 —and Thomke, Gerald J. Errata: "Observations of turbulent reattachment behind an axisymmetric downstream-facing step in supersonic flow" (TC)..... 975
 Rosner, Daniel E. Sensitivity of a downstream Langmuir probe to rocket chamber condition (TN)..... 2257
 Ross, Bernard. An analog study of the thermal buckling behavior of thin cylindrical shells (TN)..... 706
 Ross, D. H. (see Lewellen, W. S.)
 Ross, Edward W., Jr. Comment on "Computer analysis of asymmetric free vibrations of ring-stiffened orthotropic shells of revolution" (TC)..... 1437
 Rosser, Willis A., Jr., Inami, S. Henry, and Wise, Henry. Thermal diffusivity of ammonium perchlorate.....
 —Fishman, Norman and Wise, Henry. Ignition of simulated propellants based on ammonium perchlorate.....
 Rossettos, John N. An asymptotic analysis for large deflections of pressurized shallow spherical membrane shells (TN)..... 1310
 Rott, N. (see Ormsbee, A. L.)
 Roy, Jayatirmoy Sinha. Elastico-viscous fluid flow past a porous, circular cylinder (TN)..... 663
 Rubin, Ephraim L. (see Bohachevsky, Ihor O.)
 Russo, Anthony L., Hall, J. Gordon, and Lordi, John A. Measurement of nonequilibrium static pressures in nozzle flows of dissociated hydrogen (TN)..... 1615
 Ryan, N. W. (see Keller, J. A.)
 —(see Beckstead, M. W.)
 Saiva, G. (see Beaton, R. H.)
 Sanderson, R. J. Effect of boundary-layer growth on tailored interface operation of a shock tunnel (TN)..... 1461
 Santy, Myrrl J. (see Blumenthal, Jack L.)
 Sarpkaya, Turgut. Separated flow about lifting bodies and impulsive flow about cylinders..... 414
 Sasman, Philip K. and Cresci, Robert J. Compressible turbulent boundary layer with pressure gradient and heat transfer..... 19
 Sayyah, Alan R. (see Fogaroli, Richard P.)
 Schapery, R. A. and Cantey, D. E. Thermomechanical response studies of solid propellants subjected to cyclic and random loading..... 255
 Schapker, Richard L. Enthalpy and density fluctuations in high-speed wakes (TN)..... 725
 —Statistics of high-speed turbulent wake boundaries..... 1979
 Schlaack, A. L. (see Kessel, P. G.)
 Schlecht, Richard G. (see Church, Charles H.)
 Schlegel, Leo B. Contribution of earth oblateness to gravity torque on a satellite (TN)..... 2075
 Schneiderman, Arthur M. (see Patrick, Richard M.)
 —and Patrick, Richard M. Optimization of the thermal efficiency of the magnetic annular arc (TN)..... 1836
 Schneiderman, S. B. Comment on "Transport properties of hydrogen" (TC)..... 959
 Schuerch, H. Prediction of compressive strength in uniaxial boron fiber-metal matrix composite materials..... 102
 Schuyler, Frederick L., and Torda, T. Paul. An aerothermochemical analysis of solid propellant combustion..... 2171
 Schwartz, David B. (see Crawford, Robert F.)
 Schweitzer, S. and Mitchner, M. Electrical conductivity of partially ionized gases..... 1012
 —and Mitchner, M. Errata: "Electrical conductivity of partially ionized gases" (TC)..... 1888
 Schwimmer, H. Suzanne (see Smith, Myron C.)
 Sebacher, Daniel I. Flow visualization using an electron-beam afterglow in N_2 and air (TN)..... 1858
 Sedney, R. (see Spurk, J. H.)
 Seemann, G. R., Thornton, J. A., and Penfold, A. S. Experimental study of a traveling-wave accelerator (TN)..... 1870
 Segars, Ronald A. (see Hoge, Harold J.)
 Seiff, Alvin and Tauber, Michael E. Optimum conical bodies for grazing hyperbolic entry..... 61
 Sforza, P. M., Steiger, M. H., and Trentacoste, N. Studies on three-dimensional viscous jets..... 800
 Sheffield, Charles. Linearized solutions for a circular orbit perturbed by tesseral harmonics..... 688
 Sheidahl, Robert E. (see Winkler, Ernest L.)
 Shelley, P. E. (see Jordan, P. F.)
 Shelton, Samuel V. and Carlson, Walter O. Variable collision cross-section effects on electrical conductivity (TN)..... 1676
 Sheppard, L. M. (see Lee, D. H.)
 Sherman, Bernard C. and Graham, John D. Coning motion of a spinning rigid body with slowly varying inertias (TN)..... 1467
 Sherman, Martin P. (see Grey, Jerry)
 Sherman, P. M. (see Crist, S.)
 Shi, Yun Y. and Eckstein, Martin C. Ascent or descent from satellite orbit by low thrust..... 2203
 Shulman, Yechiel (see Feldt, Walter T.)
 Sichel, Martin. A hydrodynamic theory for the propagation of gaseous detonations through charges of finite width..... 264
 —and David, T. S. Transfer behind detonations in H_2-O_2 mixtures (TN)..... 1089
 Simmonds, J. G. Comments on "In-plane vibration of spinning disks" (TC)..... 380
 Simpkins, P. G. Comment on "Steadiness of a plasmajet" (TC)..... 190
 Singer, Josef. Buckling of clamped conical shells under external pressure..... 328
 Sirignano, W. A. (see Crocco, L.)
 Slaughter, J. I. (see Kendall, E. G.)
 Slick, E. M. (see Wilson, P. E.)
 Smetana, Frederick O. (see Carley, C. T., Jr.)
 Smith, A. J., Jr. (see Reardon, F. H.)
 Smith, A. M. and Hassan, H. A. Nongray radiation effects on the hypersonic boundary layer over a flat plate (TN)..... 1840
 Smith, A. M. O. and Jaffe, N. A. General method for solving the laminar nonequilibrium boundary-layer equations of a dissociating gas..... 611
 Smith, A. W. (see Criscione, J. M.)
 Smith, C. Edward, Kramer, Ray L., and Brown, Alan C. A study of the laminar near-wake behind a cylinder at Mach 20..... 1187
 Smith, Gary C. (see Bollinger, Loren E.)
 Smith, Harold P., Jr. (see Olson, N. Thomas)
 Smith, Myron C., Schwimmer, H. Suzanne, and Wu, Ching-Sheng. Reply by authors to R. W. Porter and A. B. Cambel (TC)..... 953
 Smoot, L. D. and Price, C. F. Regression rates of metallized hybrid fuel systems..... 910
 Snedeker, Richard S. and Donaldson, Coleman duP. Observation of a bistable flow in a hemispherical cavity (TN)..... 735
 Softley, E. J. (see Munts, E. P.)
 Sommers, Ralph D. and Mark, Herman. Effect of nonperfect isolation on the temperature of metal surfaces on satellites (TN)..... 1092
 —(see Mark, Herman)
 Sonin, Ain A. Free-molecule Langmuir probe and its use in flowfield studies..... 1588
 Spaid, Frank W. and Zukoski, Edward E. Further experiments concerning secondary injection of gases into supersonic flow (TN)..... 2216
 Springer, Geroge S. and Wan, Shoung Fun. Note on the application of a moment method to heat conduction in rarefied gases between concentric spheres (TN)..... 1441
 Spurk, J. H., Gerber, N., and Sedney, R. Characteristic calculation of flowfields with chemical reactions..... 30
 Srinivasan, A. V. Steady-state response of beams supported on nonlinear springs (TN)..... 1863
 Standish, E. Myles, Jr. (see Pierce, David A.)
 Stapleford, R. L. and McRuer, D. T. Sensitivity of mylitloop flight control system roots to open-loop parameter variations..... 165
 Stark, Valter J. E. On the approximation of the normal velocity on oscillating wings (TN)..... 2236
 Stars, Douglas F., Hough, Ralph L., and Golf, Linwood C. Surface finishes for boron filaments..... 1818
 Starner, Keith E. and Grabowsky, W. R. Electron-magnetic-field interactions in the electron bombardment heated thruster (TN)..... 1690
 —Stagnation point Langmuir probe measurements in an argon arc jet (TN)..... 1685
 Stear, Edwin B. (see LeMay, Joseph L.)
 Steg, Leo. AIAA Journal—Whence and whither (EDITORIAL)..... 1
 Steiger, M. H. (see Sforza, P. M.)
 Stein, Manuel (see McElman, John A.)

Stern, Ivan.	Blunt cone laminar friction drag (TN)	2051	Wallace, F. B., Jr. (see Meirovitch, L.)	
Stevens, Karl Kent.	On the parametric excitation of a viscoelastic column.....	2111	Walter, R. J. and Chandler, W. T.	Compatibility of tantalum and columbium alloys with hydrogen.....
Stojanoff, Christo G.	A transient fiber optics probe for space resolved diagnostics of dense plasmas.....	1766	Waldbusser, E.	Geometry of the near wake of pointed and blunt hypersonic cones (TN).....
Stollery, J. L. (see Richards, B. E.)		1560	Wallace, F. B., Jr. (see Meirovitch, L.)	
Stone, George W.	Aerodynamic stability of a coasting vehicle rapidly ascending through the atmosphere.....	1095	Wan, Shoung Fun (see Springer, George S.)	
Strehlow, Roger A. (see Gilbert, Ralph B.)		1095	Wang, H. E.	Reply by author to R. T. Theobald (TC).....
Stricklin, James A.	Computation of stress resultants from the element stiffness matrices (TN).....	2069	—(see Miles, J. W.)	
— and Navaratna, Dhirendra R. and Pian, Theodore H. H.	Improvements on the analysis of shells of revolution by the matrix displacement method (TN).....	2069	Wang, K. C.	Comments on "Criteria for self-similar solutions to radiative flow" (TC).....
Strome, D. R. (see Jones, R. E.)		2069	Wang, Leon Ru-Liang.	Effects of edge restraint on the stability of spherical caps (TN).....
Stuhlmiller, C., DeLucia, A., and Almroth, B. O.	Influence of stiffener eccentricity and end moment on stability of cylinders in compression.....	872	Watson, R. (see Hanson, R. K.)	
Sturges, Geoffrey J.	Comment on "Prediction of adiabatic wall temperatures in film-cooling systems" (TC).....	763	Watson, Ralph D. (see Henderson, Arthur, Jr.)	
Sugai, Iwao.	On time-dependent coverage areas of comets in elliptic orbits (TN).....	1108	Wazzan, Ahmed R.	Reply by author to J. F. Nash (TC).....
Sutton, D. (see Pearson, G. S.)		1108	Weinbaum, Sheldon.	Rapid expansion of a supersonic boundary layer and its application to the near wake.....
Sutton, W. H. (see Mehan, R. L.)		1108	—(see Weiss, Robert F.)	
Sve, Charles (see Humphreys, John S.)		1108	Weiss, Robert F. and Weinbaum, Sheldon.	Hypersonic boundary-layer separation and the base flow problem.....
Svechia, Roger A. and Brokaw, Richard S.	Heat capacity and the Lewis number of a reacting gas (TN).....	182	—Base pressure of slender bodies in laminar, hypersonic flow.....	1321
Swanson, Bruce W. (see Church, Charles H.)		182	Westkaemper, John C.	Step-induced boundary-layer separation phenomena (TC).....
Sweet, A. L. (see Genin, J.)		182	Weston, Kenneth C.	An alternate analysis of momentum deposition in the wake of a re-entry vehicle (TC).....
Tabakoff, Widén and McDonel, James D.	Measurement of the heat transfer to a two-dimensional hypersonic inlet ramp (TN).....	153	Whang, Y. C.	Radiative transfer for parallel streams of radiating gases (TN).....
Tang, Homer H. (see Barnes, John W.)		711	White, J. E.	Development of oxidation resistant tungsten-base alloys.....
Tang, Sing-chih.	A solution of the Timoshenko beam under a moving force (TN).....	1683	White, Robert A.	Effect of sudden expansions or compressions on the turbulent boundary layer (TN).....
Tapley, B. D. and Fowler, W. T.	Terminal guidance for continuous powered space vehicles (TN).....	1058	Whitfield, Jack D. and Potter, J. Leith.	Comment on "Base pressure measurements on sharp and blunt 9° cones at Mach numbers from 3.50 to 9.20" (TC).....
Tasi, James.	Effect of heterogeneity on the stability of composite cylindrical shells under axial compression.....	2257	Whitman, A. M. (see Barkan, P.)	
— Errata: "Effect of heterogeneity on the stability of composite cylindrical shells under axial compression" (TC).....		2257	Whitney, J. M. and Riley, M. B.	Elastic properties of fiber reinforced composite materials.....
Tauber, Michael E. (see Seiff, Alvin)		2257	Widnall, Sheila E. (see Dowell, Earl H.)	
— (see Wilkins, Max E.)		2257	Wilkins, Max E. and Tauber, Michael E.	Boundary-layer transition on ablating cones at speeds up to 7 km/sec.....
Tempelmeyer, K. E.	End effects in a steady-state magnetohydrodynamic $J \times B$ (TN).....	723	Williams, F. A.	Theory of propellant ignition by heterogeneous reaction.....
Theobald, Richard T.	Comments on "Motion of re-entry vehicles during constant-altitude glide" (TC).....	951	Williams, Ivan J. (see Coffey, Thomas C.)	
Thoenes, Jurgen.	Nonequilibrium flow past a circular cone including freestream dissociation (TN).....	1447	Williams, Peter M. (see Grey, Jerry)	
Thomas, G. M. and Menard, W. A.	Experimental measurements of nonequilibrium and equilibrium radiation from planetary atmospheres.....	227	Willoughby, P. G. (see Crowe, C. T.)	
Thomke, Gerald J. (see Rosko, Anatol)		227	Wilson, L. N.	Body-shape effects on axisymmetric wakes: Transition.....
Thompson, W. P. and Hartunian, R. A.	A note of caution on the use of catalytic probes (TC).....	957	Wilson, P. E., Rogers, P. W., Dharmarajan, S. N., and Slick, E. M.	Pseudononlinearity bending analysis of an orthotropic multilayer shell structure.....
Thomson, William T.	Equations of motion for the variable mass system (TC).....	766	Wilson, Sam W., Jr. and Miller, John J.	Matching planetocentric and heliocentric low-acceleration trajectories (TN).....
Thornton, J. A. (see Seemann, G. R.)		319	Winsemiller, A. F. (see MacNeal, R. H.)	
Thorston, Gaylen A. and Penning, Francis A.	Effect of axisymmetric imperfections on the buckling of spherical caps under uniform pressure.....	1573	Winkler, Ernest L. and Sheldahl, Robert E.	Influence of calorimeter surface treatment on heat-transfer measurements in arc-heated test streams (TN).....
Tien, C. L. and Abu-Romia, M. M.	Perturbation solutions in the differential analysis of radiation interactions with conduction and convection (TN).....	572	Wise, Henry (see Rosser, Willis A., Jr.)	
Tiford, Arthur N.	Comments on similarity solutions of the boundary layer near an accelerating plate (TC).....	1573	—(see Parks, Jean M.)	
Ting, Lu.	Pressure distribution on a surface with large normal injection.....	1573	Wolf, L., Jr., Obremski, H. J., Christian, W. J.	Transpiration cooling in an arc-jet environment (TN).....
Tirumalesa, Duvvuri.	Sonic line in nonequilibrium nozzle flows (TN).....	1464	Wolf, Randolph J.	Electrode effects in a seeded plasma.....
Tomazic, Frederick J. (see Bollinger, Loren E.)		572	Wolf, C. L. (see Kastner, S. O.)	
Tong, Henry.	Effects of dissociation energy and vibrational relaxation on heat transfer.....	14	Wolnik, S. J. (see Gannon, R. E.)	
Torda, T. Paul (see Schuyler, Frederick L.)		14	Woodcock, Robert J.	Comments on "Phugoid oscillations at hypersonic speeds" (TC).....
Traugott, S. C.	Radiative heat-flux potential for a nongrey gas (TN).....	541	Woodruff, Lawrence W. and Lorenz, George C.	Hypersonic turbulent transpiration cooling including downstream effects.....
Trentacoste, N. (see Sforza, P. M.)		296	Wooldridge, C. E. and Muzy, R. J.	Boundary-layer turbulence measurements with mass addition and combustion.....
Trucco, H. (see Martellucci, A.)		733	Wortman, Andrzej.	Comments on "Simplified solutions for ablation in a finite slab" (TC).....
Tsai, Stephen W. and Azzi, Victor D.	Strength of laminated composite materials.....	1695	Wu, Ching-Sheng (see Smith, Myron C.)	
Tso, W. K.	On the fundamental frequency of a four point-supported square elastic plate (TN).....	2241	Yamanaka, Tatsuo.	Mass effect on blast wave theory (TN).....
Tsou, F. K. (see Goldstein, R. J.)		1385	Yasuhara, Michiru.	Hypersonic self-similarity of barrel shock in source-type free jets (TN).....
Tuba, I. S.	Compatibility equations for arbitrary orthogonal curvilinear coordinates (TC).....	338	Yates, E. Carson, Jr.	A kernel-function formulation for nonplanar lifting surfaces oscillating in subsonic flow (TN).....
Ueng, C. E. S. and Lin, Y. J.	On bending of orthotropic sandwich plates (TN).....	338	Yen, K. T.	Effect of turbulence intermittency on the scattering of electromagnetic waves by underdense plasmas (TN).....
Uherka, K. L. (see Gardner, R. A.)		765	Yogananda, C. V. (see Iyengar, K. T. Sundara Raja)	
Ungar, E. E. and Carbonell, J. R.	On panel vibration damping due to structural joints.....	2045	Yos, Jerrold M. (see Morris, James C.)	
Vafakos, William P., Nissel, Neil, and Kempner, Joseph.	Pressurized oval cylinders with closely spaced rings.....	2239	Yu, C. P. and Lykoudis, P. S.	Spherical blast waves in a weak dipole magnetic field (TN).....
Van Atta, Charles (see Cole, Donald)		1680	Zakkay, Victor and Cresci, Robert J.	An experimental investigation of the near wake of a slender cone at $M_\infty = 8$ and 12.....
VanDyke, Peter.	Reply by author to A. Kornecki (TC).....	383	Zarin, Neil A.	Base pressure measurements on sharp and blunt 9° cones at Mach numbers from 3.50 to 9.20 (TN).....
— Nonlinear influence coefficients for a spherical shell with pressure loading (TN).....		1680	—Reply by author to J. D. Whitfield and J. L. Potter (TC).....	743
Tension shell as a membrane (TN).....		383	Zaslavsky, Elaine G. (see Hooker, William W.)	
Verette, Ralph M. and Matthiesen, R. B.	Eccentric discontinuities in unsymmetrically loaded shells of revolution (TN).....	2045	Zeigler, Seymour L.	Similar laminar boundary layer with large injection (TN).....
Verniani, Franco.	Comments on "Physics of meteor entry" (TC).....	2239	—Comments on "Similar laminar boundary layer with large injection" (TC).....	2254
Volk, H. F. (see Criscione, J. M.)		1680	Zerlaut, Gene A. and Krupnick, A. C.	An integrating-sphere reflectometer for the determination of absolute hemispherical spectral reflectance.....
Wadhwa, R. P. (see Brauch, D. F.)		383	Zinman, Walter G.	Comment on experimental precursor studies (TN).....
Wagner, Richard D., Jr. (see Henderson, Arthur, Jr.)		383	Zukowski, Edward E. (see Spaid, Frank W.)	

SUBJECTS

AERODYNAMICS

- Aerodynamic properties of some simple bodies in the hypersonic transition regime. G. A. Bird..... 55
 Aerodynamic stability of a coasting vehicle rapidly ascending through the atmosphere. George W. Stone..... 1560
 Hypersonic minimum-drag slender bodies of revolution. Martin R. Fink.....
 Improved numerical procedure for harmonically deforming lifting surfaces from the supersonic kernel function method. Herbert J. Cunningham.....
 On the effect of aerodynamic and gravitational torques on the attitude stability of satellites. L. Meirovitch and F. B. Wallace Jr.....
 Remarks on numerical solutions of the unsteady lifting surface problem. James D. Revell and William P. Rodden (TN).....
 Slender body estimates for two cubic aerodynamic damping moments. Charles H. Murphy (TN).....
 Note on the solution of the force of slender delta wings. Arnold Polak (TN).....
 Boundary-layer transition measurements on swept wings with supersonic leading edges. Samuel R. Pate and Eric E. Groth (TN).....
 Base pressure measurements on sharp and blunt 9° cones at Mach numbers from 3.50 to 9.20. Neil A. Zarin (TN).....
 A spherically blunted cone at angle of attack. Clark H. Lewis and Eugene C. Knox (TN).....
 Solidification principle for nonuniformly spinning rotors mounted on a moving vehicle. R. N. Bhattacharya (TN).....
 Oblique blast impingement on slender hypersonic bodies. G. R. Inger (TN).....
 A kernel-function formulation for nonplanar lifting surfaces oscillating in supersonic flow. E. Carson Yates Jr. (TN).....
 On the approximation of the normal velocity on oscillating wings. Valter J. E. Stark (TN).....
 Erratum: Effect of cone angle and bluntness ratio on base pressure. John M. Cassano (TC).....
 Comments on "Phugoid oscillations at hypersonic speeds." Robert J. Woodcock (TC).....
 Reply by authors to R. J. Woodcock. E. V. Laitone and Y. S. Chou (TC).....
 Comment on "Base pressure measurements on sharp and blunt 9° cones at Mach numbers from 3.50 to 9.20." Jack D. Whitfield and J. Leith Potter (TC).....
 Reply by author to J. D. Whitfield and J. L. Potter. Neil A. Zarin (TC).....

ELECTRONICS

- Sensitivity of multiloop flight control system roots to open-loop parameter variations. R. L. Stapleford and D. T. McRuer..... 1655

FACILITIES, RESEARCH, AND SUPPORT

- Driver gas detection in a shock tunnel. Henry W. Ball (TN).....
 A large dielectric vacuum facility. Robert G. Jahn and Kenn E. Clark (TN).....
 Errata: "Aerodynamic blast simulation in hypersonic tunnels." H. Mirels and J. F. Mullen (TC)..... 768

FLUID MECHANICS

- A review of hypersonic wake studies. Paul S. Lykoudis (SA).....
 Compressible turbulent boundary layer with pressure gradient and heat transfer. Philip K. Sasman and Robert J. Cresci.....
 Numerical integration of flow equations along natural coordinates. Pei Chi Chou and Richard W. Mortimer.....
 Characteristic calculation of flowfields with chemical reactions. J. H. Spurk, N. Gerber, and R. Sedney.....
 Newtonian flow over a stationary body in unsteady flow. John W. Miles.....
 An experimental investigation of the near wake of a slender cone at $M_\infty = 8$ and 12. Victor Zakkay and Robert J. Cresci.....
 Experiments on transition regime flow through a short tube with a bellmouth entry. C. T. Carley Jr. and Frederick O. Smetana.....
 Some experiments on Delta wings in hypersonic flow. Edward A. Barber.....
 Velocity profiles in turbulent compressible boundary layers. Paolo O. Baronti and Paul A. Libby.....
 A bimodal approximation for reacting turbulent flows: I. Description of the model. Shao-Chi Lin.....
 A bimodal approximation for reacting turbulent flows: II. Example of quasi-one-dimensional wake flow. Shao-Chi Lin.....
 Rapid expansion of a supersonic boundary layer and its application to the near wake. Sheldon Weinbaum.....
 Dynamics of a radiating gas with application to flow over a wavy wall. Ping Cheng.....
 A hydrodynamic theory for the propagation of gaseous detonations through charges of finite width. Martin Sichel.....
 Measurements of the turbulent near wake of a cone at Mach 6. A. Martellucci, H. Trucco, and A. Agnone.....

- An analysis of two-dimensional laminar and turbulent compressible mixing. R. C. Bauer.....
 Binary diffusion in a confined vortex. W. S. Lewellen, D. H. Ross, and M. L. Rosenzweig.....
 Use of the shock-layer approximation in the inverse hypersonic blunt body problem. H. K. Cheng and G. A. Gaitatzes.....
 Separated flow about lifting bodies and impulsive flow about cylinders. Turgut Sarpkaya..... 414
 Blast wave impingement on a slender wedge moving at hypersonic speeds. George R. Inger..... 428
 Numerical calculations of the transient loading of blunt obstacles by shocks in air. Thomas Daniel Butler..... 460
 Experimental studies of separated flows at hypersonic speeds. Part I: Separated flows over axisymmetric spiked bodies. Michael S. Holden..... 591
 A direct method for computation of nonequilibrium flows with detached shock waves. Thor O. Bohachevsky and Ephraim L. Rubin..... 600
 Generalized aerodynamic forces on an oscillating cylindrical shell: Subsonic and supersonic flow. Earl H. Dowell and Sheila E. Widnall..... 607
 General method for solving the laminar nonequilibrium boundary-layer equations of a dissociating gas. A. M. O. Smith and N. A. Jaffe..... 611
 Duct-flow of conducting fluids under arbitrarily oriented applied magnetic fields. Arsev H. Eralan..... 620
 Panel instability caused by oblique shock waves. C. H. Ellen..... 680
 A direct method for calculation of the flow about an axisymmetric blunt body at angle of attack. Thor O. Bohachevsky and Robert E. Mates.....
 Series solutions for shock-tube laminar boundary layer and test time. Harold Mirels and William S. King..... 776
 Experimental studies of separated flows at hypersonic speeds. Part II: Two-dimensional wedge separated flow studies. Michael S. Holden.....
 Studies on three-dimensional viscous jets. P. M. Sforza, M. H. Steiger, and N. Trentacoste.....
 Viscous effects far downstream in a slowly expanding hypersonic nozzle. Maurice L. Rasmussen and Krishnamurti Karamcheti.....
 A study of laminar near wakes. E. P. Muntz and E. J. Softley.....
 Observations of turbulent reattachment behind an axisymmetric downstream-facing step in supersonic flow. Anatol Roshko and Gerald J. Thomke.....
 Low-frequency, large-amplitude fluctuations of the laminar boundary layer. W. S. King.....
 Stability derivatives of sharp wedges in viscous hypersonic flow. Kazimierz J. Orlik-Ruckemann.....
 Dynamics of gases containing evaporable liquid droplets under a normal shock. H. Y. Lu and H. H. Choi.....
 A study of the laminar near-wake behind a cylinder at Mach 20. C. Edward Smith, Ray L. Kramer, and Alan C. Brown.....
 Hypersonic boundary-layer separation and the base flow problem. Robert F. Weiss and Sheldon Weinbaum.....
 Fully developed turbulent supersonic flow in a rectangular channel. J. Kenneth Richmond and Raymond Goldstein.....
 Effect of small radius of curvature on transonic flow in axisymmetric nozzles. D. F. Hopkins and D. E. Hill.....
 Boundary-layer transition on ablating cones at speeds up to 7 km/sec. Max E. Wilkins and Michael E. Tauber.....
 Turbulent compressible boundary layer on a flat plate with heat transfer and mass diffusion. H. Rosenbaum.....
 Base pressure of slender bodies in laminar, hypersonic flow. Robert F. Weiss.....
 Diffusion and decay of turbulent elliptic wakes. Yung-Hsiang Kuo and Lionel V. Baldwin.....
 Pressure distribution on a surface with large normal injection. Lu Ting.....
 An experimental model for the sharp flat plate in rarefied hypersonic flow. W. J. McCroskey, S. M. Bogdonoff, and J. G. McDougall.....
 Infrared radiometry of turbulent flows. James Stark Draper.....
 Mass transfer and first-order boundary-layer effects on sharp cone drag. Part I: At supersonic conditions. Clark H. Lewis, Ernest O. Marchand, and Herbert R. Little.....
 Second-order theory for airfoils in uniform shear flow. C. F. Chen.....
 Asymptotic solution for the viscous radiating shock layer. Odus R. Burggraf.....
 Body-shape effects on axisymmetric wakes: Transition. L. N. Wilson.....
 Theory of detonation initiation behind reflected shock waves. Ralph B. Gilbert and Roger A. Strehlow.....
 Mass transfer and first-order boundary-layer effects on sharp cone drag. Part II: At hypersonic conditions. Clark H. Lewis, Ernest O. Marchand, and Herbert R. Little.....
 Progress report on a digital experiment in spiral turbulence. Donald Coles and Charles Van Atta.....
 Turbulence structure in free shear layers. P. O. A. L. Davies.....
 Statistics of high-speed turbulent wake boundaries. Richard L. Schapler.....
 Interferometric analysis of density fluctuations in hypersonic turbulent wakes. Hwachii Lien and Jerome Eckerman.....
 Correlation of intermittency with preferential transport of heat and chemical species in turbulent shear flows. E. Mayer and D. Divoky.....
 Stochastic model for turbulent, reacting wakes. W. E. Gibson.....
 Turbulent mixing of an axisymmetric jet of partially dissociated nitrogen with ambient air. T. J. O'Connor, E. H. Comfort, and L. A. Cass.....
 Fluid dynamic studies to $M = 41$ in helium. Arthur Henderson Jr., Ralph D. Watson, and Richard D. Wagner Jr. 2117

Equilibrium air radiation from shock layers at 11.3 km/sec. David M. Cooper.....	2125
Bodies of maximum lift-to-drag ratio in hypersonic flow. Arthur H. Lusty Jr. and Angelo Miele.....	2130
A time-dependent computational method for blunt body flows. Gino Moretti and Michael Abbott.....	2136
Effect of spherical roughness on hypersonic boundary-layer transition. W. D. McCauley, A. R. Saydah, and J. F. Bueche.....	2142
Ionization behind a sphere in hypersonic flight. Part I: Near-wake theory. Alan Q. Eschenroeder and Tung Chen.....	2149
Effect of turbulence intermittency on the scattering of electromagnetic waves by underdense plasmas. K. T. Yen (TN).....	154
Similar laminar boundary layer with large injection. Seymour L. Zeiberg (TN).....	157
Estimation of the strength of lip shock. Francis R. Hama (TN).....	166
Shock wave shapes on a sharp flat plate in rarefied hypersonic flow. W. J. McCroskey and J. G. McDougall (TN).....	184
A criterion for the transition between flow regimes in turbulent cavity flow. Jay Fox (TN).....	364
On supersonic flow past oscillating bodies of revolution. Gilbert H. Hoffman and Max F. Platzer (TN).....	370
Hydromagnetic wall jet. E. R. D'Sa (TN).....	537
Hypersonic flow over a delta wing of moderate aspect ratio. N. D. Malinuth (TN).....	555
Steady expansion of a gas into a vacuum. R. H. Edwards and H. K. Cheng (TN).....	558
Simplified equations for hypersonic viscous flow past slender bodies. J. A. Laurmann (TN).....	568
An inverse problem of nonequilibrium duct flow. Chong-Wei Chu (TN).....	719
Enthalpy and density fluctuations in high-speed wakes. Richard L. Schapker (TN).....	725
On the numerical solution of unsteady, laminar boundary layers. Charles L. S. Farn and Vedat S. Arpacı (TN).....	730
Observation of a bistable flow in a hemispherical cavity. Richard S. Snedeker and Coleman duP. Donaldson (TN).....	735
Vortex shedding from yawed cylinders. A. R. Hanson (TN).....	738
Measurement of nonequilibrium static pressures in nozzle flows of dissociated hydrogen. Anthony L. Russo, J. Gordon Hall, and John A. Lordi (TN).....	741
Low-density gas flow in long tubes. Mancil W. Milligan (TN).....	745
Jet boundary determination of underexpanded two-phase carbon dioxide nozzle flow. Darrel G. Harden (TN).....	746
Effects of dissociation rate magnitudes and relative collision efficiencies on relaxation profiles in diatomic gases. R. K. Hansón and R. Watson (TN).....	749
Incompressible wake flow in pressure gradient. A. Prabhu (TN).....	925
A correlation of the spread and decay of turbulent free jets. Norman S. Cohen (TN).....	929
Remarks on quasilinearization applied in boundary-layer calculations. Paul A. Libby and Karl K. Chen (TN).....	937
Empirical relationships between the shape factors H_{22} and H_{12} for uniform-density turbulent boundary layers and wall jets. W. B. Nicoll and M. P. Escudier (TN).....	940
Location of transition in a free jet region. R. H. Page and W. G. Hill Jr. (TN).....	944
Hypersonic self-similarity of barrel shock in source-type free jets. Michiru Yasuhara (TN).....	1102
Gasdynamic structure of jets from plug nozzles. C. C. Lee (TN).....	1114
Time required for establishing detached bow shock. J. W. Miles, H. Mirels, and H. E. Wang (TN).....	1127
Secondary flows associated with a supersonic corner region. Paul A. Libby (TN).....	1130
An experimental study of jet turbulent mixing at subsonic-supersonic speeds. H. S. Bluston (TN).....	1137
General formulation of surface catalytic reactions. J. P. Gurney (TN).....	1299
Radiation coupled wedge flows. Martin Jischke (TN).....	1300
Flowfield of a highly underexpanded jet impinging on a surface. D. W. Eastman and J. P. Bonnema (TN).....	1302
Visualization technique for massive blowing studies. R. A. Hartunian and D. J. Spencer (TN).....	1305
Skin-friction predictions in turbulent compressible flow. James J. Komar (TN).....	1307
A comparison of solutions to a blunt body problem. James C. Perry and Lionel Pasieu (TN).....	1425
A class of nozzle-like exact solutions for compressible axisymmetric flow. Harold G. Elrod Jr. (TN).....	1426
Rapid calculations of boundary layers with coupled heat and mass transfer. T. K. Fanellop (TN).....	1433
Elastico-viscous fluid flow past a porous, circular cylinder. Jyotirmoy Sinha Roy (TN).....	1443
Nonequilibrium flow past a circular cone including freestream dissociation. Jurgen Thoenes (TN).....	1447
Nonequilibrium flow past an infinite corrugated cylinder. Kul Deepak Nanda (TN).....	1457
Effect of boundary-layer growth on tailored interface operation of a shock tunnel. R. J. Sanderson (TN).....	1461
Sonic line in nonequilibrium nozzle flows. Duvvuri Tirumalesa (TN).....	1464
Stability derivatives of sharp cones in viscous hypersonic flow. R. J. Kind and K. J. Orlitz-Ruckemann (TN).....	1469
Length scale of separated turbulent boundary layers in compression corners. R. D. Mikesell (TN).....	1482
Transonic and low supersonic shock shape solutions. Andrew H. Jenkins, Billy Z. Jenkins, and Lloyd H. Johnson (TN).....	1483
Effect of mass injection into a cavity on hypersonic boundary-layer transition. E. Leon Morissette (TN).....	1488
The use of honeycomb for shear flow generation. Donald R. Kotanay (TN).....	1490
Total boundary-layer mass flow with mass transfer at the wall. Gary T. Chapman (TN).....	1688
An equation for the entrainment of ejectors. Harold J. Hoge and Ronald A. Segars (TN).....	1689
Supersonic quasi-slender body theory for slowly oscillating bodies. Max F. Platzer and Gilbert H. Hoffman (TN).....	1693
An approximate second-order wing theory. D. H. Lee and L. M. Sheppard (TN).....	1828
Inviscid cone flows with surface mass transfer. Jerome Arostegui and Stephen H. Davis (TN).....	1830
Equivalence of secondary injection to a blunt body in supersonic flow. Henry Tao-Sae Hsia (TN).....	1832
A simple model shear flow with blowing. George R. Inger (TN).....	1834
Strong and weak interaction parameters for turbulent flow. John W. Barnes and Homer H. Tang (TN).....	1838
Nongray radiation effects on the hypersonic boundary layer over a flat plate. A. M. Smith and H. A. Hassan (TN).....	1840
Radiation effects in the stagnation region. R. F. Chisnell (TN).....	1848
Shock wave transport effects on hypersonic leading edge flow. Richard W. Garvine (TN).....	1856
Flow visualization using an electron-beam afterglow in N_2 and air. Daniel I. Sebacher (TN).....	1858
Flow separation due to jet pluming. L. J. Alpinieri and Richard H. Adams (TN).....	1865
Optimum lifting bodies in hypersonic viscous flow. W. S. Lewellen and H. Mirels (TN).....	1866
Oscillating two-phase flow through a rigid pipe. Ali Hasan Nayefeh (TN).....	1868
Geometry of the near wake of pointed and blunt hypersonic cones. E. Waldbauer (TN).....	1874
Approximate calculation of highly underexpanded jets. Edward W. Hubbard (TN).....	1877
Boundary layer over a slender paraboloid of revolution with fluid injection. Lorenzo M. Albacete (TN).....	2040
Hypersonic flow over a blunt flat plate with surface mass transfer. George Lee (TN).....	2049
Rarefaction effects in hypersonic boundary layers. Jan Raat and Lionel Pasieu (TN).....	2052
A note on experimental and theoretical comparisons of conical shock-shock interactions. Victor D. Blankenship and David L. Merritt (TN).....	2054
Hypersonic slip flow past the leading edge of a flat plate. W. L. Chow (TN).....	2062
Stability of free convection flow over a vertical uniform flux plate. Constantine E. Polymeropoulos and Benjamin Gebhart (TN).....	2066
Measurement of turbulence by pressure probes. Valdimir Jezdinsky (TN).....	2072
Comment on experimental precursor studies. Walter G. Zinman (TN).....	2073
Hartree's solutions of the Falkner-Skan equation. S. N. Brown (TN).....	2215
Further experiments concerning secondary injection of gases into a supersonic flow. Frank W. Spaid and Edward E. Zukowski (TN).....	2216
Detection of oblique shocks in a conical nozzle with a circular-arc throat. L. H. Back and R. F. Cuffel (TN).....	2219
Further experiments on transition reversal at hypersonic speeds. B. E. Richards and J. L. Stollery (TN).....	2224
Direct diabatic hydraulic analogy. R. H. Beaton, G. Saiva, R. D. Archer, and R. A. A. Bryant (TN).....	2229
Effect of sudden expansions or compressions on the turbulent boundary layer. Robert A. White (TN).....	2232
Turbulence structure near rough surfaces. J. M. Robertson and J. D. Martin (TN).....	2242
Interactions within the laminar hypersonic boundary layer. Robert H. Johnson (TN).....	2245
Stanton tube calibration in a laminar boundary layer at Mach 6. John E. Lewis and Toshi Kubota (TN).....	2251
Comment on "Magnetohydrodynamic flow past a thin airfoil." Y. M. Lynn (TC).....	189
Erratum: "A single formula for the velocity distribution in the turbulent inner and outer boundary layers." Hwachii Liien (TC).....	192
Comments on "Satellite potential in an ionized atmosphere." S. H. Lam (TC).....	378
Reply by author to S. H. Lam. Norman C. Jen (TC).....	378
Comments on "Bow shock shape about a spherical nose." K. D. Korkan (TC).....	381
Comments on similarity solutions of the boundary layer near an accelerating plate. Arthur N. Tifford (TC).....	572
Reply by author to A. N. Tifford. Tsung Yen Na (TC).....	573
Comments on "Review of recent developments in turbulent super-sonic base flow." J. F. Nash (TC).....	574
Reply by author to J. F. Nash. Ahmed R. Wazan (TC).....	575
Errata: "Application of Pohlhausen's method to stagnation-point flow." R. D. Hugelman (TC).....	576
Comments on "Calibration of Preston tubes in supersonic flow." Edward J. Hopkins and Earl R. Keener (TC).....	760
Comment on "Magnetohydrodynamic-hypersonic viscous and inviscid flow near the stagnation point of a blunt body." R. W. Porter and Ali Bulent Cambel (TC).....	952
Reply by authors to R. W. Porter and A. B. Cambel. Myron C. Smith, H. Susanne Schwimmer, and Ching-Sheng Wu (TC).....	953
An alternate analysis of momentum deposition in the wake of a re-entry vehicle. Kenneth C. Weston (TC).....	956
Displacement thickness for boundary layers with surface mass transfer. T. K. Fanellop (TC).....	1142
Reply to T. K. Fanellop. T. Y. Li (TC).....	1144
Choice of boundary conditions in viscous interaction theory. Odus R. Burggraf (TC).....	1145
Reply to O. R. Burggraf. T. K. Fanellop (TC).....	1146
Step-induced boundary-layer separation phenomena. John C. Westkaemper (TC).....	1147
Comment on "Nonequilibrium effects on high-enthalpy expansion of air." Clarence J. Harris (TC).....	1148
Comment on "Extensions of the Falkner-Skan similar solutions to	1148

- flows with surface curvature." B. S. Massey and B. R. Clayton (TC).....
 Comment on the location of the center of pressure of a right circular cone using Newtonian impact theory. Frank Garcia Jr. (TC).....
 Comments on "Choked flow: A generalization of the concept and some experimental data." William C. Robison and James R. Nelson (TC).....
 Reply by authors to W. C. Robison and J. R. Nelson. Harold J. Hoge and Ronald A. Segars (TC).....
 Errata: "Hypersonic flow over a delta wing of moderate aspect ratio." N. D. Malmuth (TC).....
 Comment on "Choked flow: A generalization of the concept and some experimental data." H. Pearson (TC).....
 On the existence of a pressure plateau in pure laminar separated flows. J. Don Gray (TC).....
 Some comments about three-dimensional supersonic flow computations. G. Moretti (TC).....
 Comments on "Approximate solution of second-order boundary-layer equations." Howard E. Bethel (TC).....
 Reply by author to H. E. Bethel. Leroy Devan (TC).....
 Effect of wave reflections on the unsteady hypersonic flow over a wedge. K. J. Orlitz-Ruckemann (TC).....
 Asymptotic Mach numbers in a real gas. Sidney A. Powers. (TC).
 Comments on "Similar laminar boundary layer with large injection." Seymour I. Zaiberg (TC).....
 Errata: "Observations of turbulent reattachment behind an axisymmetric downstream-facing step in supersonic flow." Anatol Roshko and Gerald J. Thomke (TC).....

1149
1150
1309
1310
1312
1502
1503
1695
1882
1883
1884
1886
2080
2257

NAVIGATION

- Neighboring optimal terminal control with discontinuous forcing functions. John E. McIntyre.....
 A technique for optimal final value control of powered flight trajectories. C. G. Pfeiffer.....
 On the motion within fluid gyroscopes. Martin Fiebig.....
 Optimum guidance for a low thrust interplanetary vehicle. J. V. Breakwell and H. E. Rauch.....
 Closed-loop near-optimum steering for a class of space missions. Frederick H. Martin.....
 A method of orbital navigation using optical sightings to unknown landmarks. Gerald M. Levine.....
 Stability analysis of multiloop, multirate sampled systems. Thomas C. Coffey and Ivan J. Williams.....
 On the effect of aerodynamic and gravitational torques on the attitude stability of satellites. L. Meirovitch and F. B. Wallace Jr.
 Reciprocity theorem for systems with gyroscopic coupling. William W. Hooker and Elaine G. Zaslawsky (TN).....
 A V-gyro pair as a dual-rate sensor. J. Knudson (TN).....
 Terminal guidance for continuous powered space vehicles. B. D. Tapley and W. T. Fowler (TN).....
 Contribution of earth oblateness to gravity torque on a satellite. Leo B. Schlegel (TN).....
 Comments on "Motion of re-entry vehicles during constant-altitude glide." Richard T. Theobald. (TC).....
 Reply by author to R. T. Theobald. H. E. Wang (TC).....

GEOPHYSICS

- Interaction of the solar wind with the planets. Paul J. Coleman Jr. (SA).....
 Errata: "Physics of meteor entry." Mary F. Romig (TC).....
 Comments on "Physics of meteor entry." Franco Verniani (TC).....

4
191
383

INSTRUMENTATION AND PHOTOGRAPHY

- An integrating-sphere reflectometer for the determination of absolute hemispherical spectral reflectance. Gene A. Zerlaut and A. C. Krupnick.....
 A technique for micromanometry. H. J. Carper and R. A. Burton (TN).....

1227
549

MATERIALS, METALLIC

- A review of the methods of measuring the strength of whiskers and their role in reinforcing ductile metal matrices. R. L. Mehan, W. H. Sutton, and J. A. Herzog (SA).....
 Prediction of compressive strength in uniaxial boron fiber-metal matrix composite materials. H. Schuerch.....
 Pyrolytic titanium diboride filaments for composites. Ralph L. Hough.....
 Compatibility of tantalum and columbium alloys with hydrogen. R. J. Walter and W. T. Chandler.....
 Development of oxidation resistant tungsten-base alloys. J. E. White.....
 Tungsten single crystal sheet. L. Raymond and F. R. Charvat.....
 Oxidation and mechanical performance of tungsten at high temperatures and high pressures. Galen A. Etemadi.....
 Comments on the work function of metal droplets. Keung P. Luke (TC)(SA).....

1889
102
107
302
307
895
1543
382

MATERIALS, NONMETALLIC

- Strength of laminated composite materials. Stephen W. Tsai and Victor D. Azzi.....
 A new class of hypereutectic carbide composites. E. G. Kendall, J. I. Slaughter, and W. C. Riley.....
 Fundamental studies of the stability of thermal-control coatings. D. T. Lowrance and R. L. Cox.....
 Kinetic studies of high-temperature carbon-silicon reactions in charred silica-reinforced phenolic resins. Jack L. Blumenthal, Myrrl J. Santy, and Eugene A. Burns.....
 Viscoelastic fiber reinforced materials. Zvi Hashin.....
 Surface finishes for boron filaments. Douglas F. Starks, Ralph L. Hough, and Linwood C. Golf.....
 Silicon carbide in ablative chars. Michael Ladacki (TN).....

1071
1071
1411
1818
1445

MATHEMATICS

- Sequential estimation when measurement function nonlinearity is comparable to measurement error. Walter F. Denham and Samuel Pines.....
 On numerical optimization with state variable inequality constraints. Walter F. Denham (TN).....
 Some aids to convergence from crude initial estimates. Richard A. Batchelder (TN).....
 Real solutions of sets of nonlinear equations. T. R. Kane. (TN).....
 A modification of Potters' method for solving eigenvalue problems involving tridiagonal matrices. Robert E. Blum and Robert E. Fulton (TN).....

2231

NUCLEAR ENGINEERING

- A plasma-core nuclear rocket utilizing a magnetohydrodynamically-driven vortex. Kurt P. Johnson.....

635

PHYSICS, GENERAL

- On the stability of a body with connected moving parts. Ralph Pringle Jr.
 Spectral normal emittance of single crystals. R. L. Dreashfield and R. D. House (TN).....
 Coning motion of a spinning rigid body with slowly varying inertias. Bernard C. Sherman and John D. Graham (TN).....
 Comments on "Effect of microparticle impact on the optical properties of metals." Herman Mark and Michael J. Mirtich (TC) ..
 Reply by authors to H. Mark and M. J. Mirtich. R. E. Gannon, T. S. Lassio, C. H. Leigh, and S. J. Wolnik (TC).....

1395
371
1467
1499
1500

PHYSICS, ATOMIC, MOLECULAR, AND NUCLEAR

- Free-molecular diffuser. Marshall H. Kaplan.....
 Yield and angular distribution of cesium sputtered copper using a radioactive tracer technique. N. Thomas Olson and Harold P. Smith Jr.
 Atomic line radiation in equilibrium air. Robert M. Nerem (TN)....
 Density measurements with electron beams. Stuart L. Petrie (TN).....

675
916
1485
1679

PHYSICS, PLASMA

- Performance characteristics of a magnetic annular arc. Richard M. Patrick and Arthur M. Schneiderman.....
 Electron density and temperature measurements in the exhaust of an MPD source. A. J. Kelly, N. M. Nerheim, and J. A. Gardner.....
 Effect of electrode size in MHD generators with segmented electrodes. Zdzislaw N. Celinski and Fred W. Fischer.....
 Energy efficiency trends in a coaxial gun plasma engine system. P. Gloersen, B. Gorowitz, and J. T. Kenney.....
 Theory of electrostatic double probe comprised of two parallel plates. Paul M. Chung and Victor D. Blankenship.....
 Langmuir probe diagnosis of turbulent plasmas. Anthony Demetriades and Ernest L. Doughman.....
 Direct current liquid-metal magnetohydrodynamic power generation. David G. Elliott.....
 Computer studies of plasma boundaries and lens effects created by immersed and withdrawn neutralizers. D. F. Brauch, O. Bune-man, and R. P. Wadhwa.....
 Continuum radiation from partially ionized argon. Martin E. Barzely.....
 Analytical and experimental performance of capacitor powered coaxial plasma guns. C. J. Michels, J. E. Heighway, and A. E. Johansen.....
 Quasi-steady-state pulsed plasma thrusters. D. E. T. F. Ashby, L. Liebing, A. V. Larson, and T. J. Gooding.....
 Cyclotron resonance thruster design techniques. David B. Miller and George W. Bethke.....
 Electrical conductivity of partially ionized gases. S. Schweitzer and M. Mitchner.....
 Performance of an electrically triggered repetitively pulsed coaxial plasma engine. Bernard Gorowitz, Thomas W. Karras, and Per Gloersen.....
 Acceleration instability of a vapor-liquid metal interface with longitudinal magnetic field. D. J. BenDaniel and H. Hurwitz Jr.
 Computation of electrostatic probe characteristics by quasilinearization. John R. Radbill.....

283
291
421
436
442
451
627
823
831
835
851
853
1012
1027
1049
1195

Thermionic energy conversion using barium plus cesium vapors. John Psarouthakis.....	1201	Electrical conductivity measurements in a Faraday accelerator. Raymond Goldstein, J. Kenneth Richmond, and Gordon C. Oates (TN).....	2043
Diagnostic studies in a Hall accelerator at low exhaust pressure. P. Brockman, R. Hess, F. Bowen, and O. Jarrett.....	1209	Electrode current saturation in MHD ducts. J. F. Armstrong, D. W. George, and H. K. Messerle (TN).....	2061
Investigation of current-sheet microstructure. R. H. Lovberg.....	1215	Magnetoplastic effect in non-Newtonian fluids. Rodolfo Palabazzer (TN).....	2064
Continuum radiated power for high-temperature air and its components. James C. Morris, Gale R. Bach, Rhoda U. Krey, Richard W. Liebermann, and Jerryold M. Yos.....	1223	MHD accelerator performance for specified interaction parameter. Charles H. Marston (TN).....	2078
Magnetohydrodynamic boundary layer between parallel streams of different magnetic fields and temperatures. H. P. Pao and C. C. Chang.....	1313	On the stability of an argon plasmajet. Brian D. Adcock (TN).....	2249
Neutral mass density measurements in a repetitively pulsed coaxial plasma accelerator. T. Karras, B. Gorowitz, and P. Gloersen.....	1366	Comment on "Steadiness of a plasmajet." P. G. Simpkins (TC) ...	190
Free-molecule Langmuir probe and its use in flowfield studies. Ain A. Sonin.....	1588	Reply by authors to P. G. Simpkins. E. Pfender and C. J. Cremer (TC).....	191
Growth rates for axial magneto-acoustic waves in a Hall generator. Edward V. Locke and James McCune.....	1748	Equilibrium properties of argon. Brian D. Adcock (TC).....	193
Fluidmagnetic buoyancy. Ronald E. Rosensweig.....	1751	Comments on "Transport properties of hydrogen." R. S. Devoto (TC).....	1149
Nonuniform conductivity MHD channel flow solution by B. G. Galerkin method. Arsev H. Eraslan.....	1759	Errata: "Theory of electrostatic double probe comprised of two parallel plates." Paul M. Chung and Victor D. Blankenship (TC).....	1312
A transient fiber optic probe for space resolved diagnostics of dense plasmas. Christo G. Stojanoff.....	1766	Comment on "Validity of integral methods in MHD boundary-layer analysis." Pau-Chang Lu (TC).....	1497
Segmented electrode losses in MHD generators with nonequilibrium ionization. Jack L. Kerrebroek.....	1938	Errata: "Electrical conductivity of partially ionized gases." S. Schweitzer and M. Mitchner (TC).....	1888
Studies of highly radiative plasmas using the wall-stabilized pulsed arc discharge. Charles H. Church, Richard G. Schlecht, Irving Liberman, and Bruce W. Swanson.....	1947	Errata: "Thermionic energy conversion using barium plus cesium vapors." John Psarouthakis (TC)	2080
Electrode effects in a sealed plasma. Randolph J. Wolf.....	2155		
Comparison of numerical calculations and measured space-time resolved plasma properties of a dynamical theta pinch. Otto M. Frederick Jr. and Arwin A. Dougal.....	2159		
Radial density and temperature profiles at the ion cyclotron wave resonance point. Roman Krawiec.....	2166		
Acceleration of magnetogasdynamics source flow through the sonic velocity. F. D. Hains (TN).....	158	Theory of ignition of solid propellants. E. W. Price, H. H. Bradley Jr., G. L. Dehority, and M. M. Iribar (SA).....	1153
Lorentz force maximization in continuous flow Hall current plasma accelerators. Roger P. Henry (TN).....	165	A theoretical model for predicting aluminum oxide particle size distributions in rocket exhausts. Harvey L. Fein.....	92
Prediction of mode transition in an arc with a transpiration cooled anode. Clifford J. Cremers and Richard C. Birkebak (TN).....	167	Thermomechanical response studies of solid propellants subjected to cyclic and random loading. R. A. Schapery and D. E. Cantey. Shock tube ignition delay studies of endothermic fuels. Robert D. Hawthorn and Alan C. Nixon.....	255
General study of plane steady flows in nonequilibrium magnetogasdynamics. O. P. Bhutani (TN).....	367	Sensitivity of composite and double-base propellants to shock waves. Nathaniel L. Coleburn.....	513
Magnetohydrodynamic natural convection in a cylinder. N. T. Dunwoody (TN).....	368	Some observations on the combustion of N_2H_4 droplets. B. R. Lawyer.....	521
Measurement of the thermal radiation from an argon plasmajet. C. J. Cremers and E. Pfender (TN).....	376	Thermal diffusivity of ammonium perchlorate. Willis A. Rosser Jr., S. Henry Inami, and Henry Wise.....	659
Electron temperatures in several rf-generated plasmas. M. H. Clarkson, R. E. Field Jr. and D. R. Keeler (TN).....	546	Regression rates of metalized hybrid fuel systems. L. D. Smoot and C. F. Price.....	663
Significance of nonequilibrium conductivity on plasma engine performance. M. M. Levoy and T. H. Dimmock (TN).....	553	Relationship between filler distribution and uniaxial rupture of composite solid propellants. Norman Fishman.....	910
Hall-current generator characteristics at constant electron temperature. H. E. Brandmaier (TN).....	563	Studies of ionization phenomena associated with solid-propellant rockets. E. L. Capener, J. B. Chown, L. A. Dickinson, and J. E. Nanovich.....	1044
End effects in a steady-state magnetohydrodynamic $J \times B$ accelerator. K. E. Tempelmeyer (TN).....	723	Theory of propellant ignition by heterogeneous reaction. F. A. Williams.....	1349
Ablating shield for plasma arc probe. R. G. Heidelbach, W. H. Avery, and E. A. Bunt (TN).....	751	Ignition of ammonium perchlorate composite propellants by convective heating. J. A. Keller, A. D. Baer, and N. W. Ryan.....	1354
Self-excited explosive-driven MHD generator. A. L. Loeffler Jr., L. Aronowitz, and W. B. Ericson (TN).....	942	Thermal conductivity: A parameter in solid propellant burning. M. Imber.....	1358
Spherical blast waves in a weak dipole magnetic field. C. P. Yu and P. S. Lykoudis (TN).....	945	Ignition of simulated propellants based on ammonium perchlorate. W. A. Rosser, N. Fishman, and H. Wise.....	1610
Measurement of the velocity distribution in a plasmajet. Chad F. Gottschlich, John A. Enright, and Frederick C. Cadek (TN).....	1085	Nonacoustic instability of composite propellant combustion. M. W. Beckstead, N. W. Ryan, and A. D. Baer.....	1622
Flow transition phenomena in a subsonic plasmajet. Frank Incropera and George Leppert (TN).....	1087	A model of composite propellant combustion including surface heterogeneity and heat generation. Clarke E. Hermance.....	1629
Analytical solution for minimum length MHD accelerator with constant pressure. Vittorio Fiorini (TN).....	1098	Experiments on hydrogen recombination in nozzle flows for the H_2/F_2 system. W. C. Kuby (TN).....	160
Magnetohydrodynamic potential flow over a cylinder with an axial magnetic field. W. F. Hughes (TN).....	1104	Finite rate evaporation of hydrogen in air. Raymond Edelman and Harold Rosenbaum (TN).....	163
Maxwellization of electrons in a low-voltage, atmospheric pressure gas discharge. Frederic A. Lyman (TN).....	1128	Gas evolution from a solid rocket propellant during depressurization to produce a quench. Edward A. Fletcher and Gene W. Bunde (TN).....	181
Velocity measurement by Doppler effect. Boye Ahlbom and A. Johannes Barnard (TN).....	1136	Experimental investigation of bipropellant arc. H. O. Noeske and J. C. Glass (TN).....	716
A modified Pohlhausen velocity profile for MHD boundary-layer problems. William H. Heiser and Walter J. Bornhorst (TN).....	1139	Explosion of propellants. Robert F. Fletcher, Dal Gerneth, and Clark Goodman (TN).....	755
Hydromagnetic free convection flows from a horizontal plate. A. S. Gupta (TN).....	1439	Shock wave interaction with a burning solid propellant. Vito D. Agosta (TN).....	934
Note on the application of a moment method to heat conduction in rarefied gases between concentric spheres. George S. Springer and Shoung Fun Wan (TN).....	1441	Mechanism of combustion of liquid rocket propellants: Aliphatic alcohols and mixed acid. R. P. Rastogi and K. Kishore (TN).....	1083
Results of large vacuum facility tests of an MPD arc thruster. Robert E. Jones (TN).....	1455	Gas evolution from solid propellants during pressure decays. Edward A. Fletcher and Tsuyoshi Hiroki (TN).....	2222
Approximation to the electrical conductivity of a magnetically balanced arc in transverse argon flow. T. W. Myers (TN).....	1459	Ignition of composite propellant fuels by perchloric acid vapor. G. S. Pearson and D. Sutton (TC).....	954
Nonisentropic two-dimensional MHD flow. Roy M. Gundersen (TN).....	1474	Comment on "Regression rates of metalized hybrid fuel systems." Gerald A. Marxman (TC).....	956
Variable collision cross-section effects on electrical conductivity. Samuel V. Shelton and Walter O. Carlson (TN).....	1676	Errata: "A theoretical model for predicting aluminum oxide particle size distributions in rocket exhausts." Harvey L. Fein (TC)	960
Stagnation point Langmuir probe measurements in an argon arc jet. Keith E. Starner (TN).....	1685	Erratum: "Relationship between filler distribution and uniaxial rupture of composite solid propellants." Norman Fishman (TC)	1888
Stagnation pressure measurement in a current-carrying plasma. P. Barkan and A. M. Whitman (TN).....	1691		
Optimization of the thermal efficiency of the magnetic annular arc. A. M. Schneiderman and R. M. Patrick (TN).....	1836		
Effects of a transverse magnetic field and spanwise electric field on the boundary layer of a conducting fluid. N. A. Jaffe (TN).....	1843		
Probe measurements in an electrodeless discharge. D. R. Keeler, M. H. Clarkson, and B. E. Mathews (TN).....	1850		
Interaction of high-density plasma with hot cathode. Vijay K. Rohatgi (TN).....	1852		
Experimental study of a traveling-wave accelerator. G. R. Seemann, J. A. Thornton, and A. S. Penfold (TN).....	1870		

PROPELLANTS

Study of the highly underexpanded sonic jet. S. Crist, P. M. Sherman, and D. R. Glass.....	68
Theoretical considerations relating to the effect of injector design on unstable burning of liquid propellant rocket motors. F. T. McClure, R. H. Cantrell, and R. W. Hart.....	84
Performance measurements on a pulsed ablating thruster. R. Goldstein and F. N. Mastrup.....	99

Influence of residual gas atmosphere in space chambers on neutral efflux and critical temperature of tungsten ionizers. O. K. Husmann, D. M. Jamba, and D. R. Denison.....	273
Influence of combustion parameters on instability in solid propellant motors: Part I. Development of model and linear analysis. John C. Friedly and Eugene E. Petersen.....	1604
Correlation of performance of conical and contoured nozzles for gas-particle flow. S. A. Lorenc and J. D. Hoffman (TN).....	169
Sensitivity of a downstream Langmuir probe to rocket chamber conditions. Daniel E. Rosner (TN).....	706
Wave slope-gas dynamic interactions in liquid rockets. Sanford S. Hammer and Vito D. Agosta (TN).....	753
Electro-magnetic-field interactions in the electron bombardment heated thruster. K. E. Starner and W. R. Grabowsky (TN).....	1090
Remarks on acoustic oscillations in a solid propellant rocket. F. E. Culick (TN).....	1120
Shock propagation in solid-propellant rocket combustors. W. G. Brownlee and G. H. Kimbell (TN).....	1132
Thrust magnitude control for a solid rocket by injection at the throat. A. J. Ormsbee, R. E. Gardner, N. Rott, and R. H. Nunn (TN).....	1424
Effect of the transverse velocity component on the nonlinear behavior of short nozzles. L. Crocco and W. A. Sirignano (TN).....	1428
Rotational axisymmetric mean flow and damping of acoustic waves in a solid propellant rocket. F. E. C. Culick (TN).....	1462
A mechanism for particle growth in a rocket nozzle. C. T. Crowe and P. G. Willoughby (TN).....	1677
Comment on "Perturbation solutions for low-thrust rocket trajectories." M. J. Cohen (TC).....	573

SPACE RADIATION

Electron impact cross sections for aeronomy. A. E. S. Green (SA).....	769
Some techniques applicable to the shielding of nuclear particles from space. M. J. Barrett.....	9
Experimental measurements of nonequilibrium and equilibrium radiation from planetary atmospheres. G. M. Thomas and W. A. Menard.....	227
Magnetogasdynamical boundary condition for a self-consistent solution to the closed magnetopause. Murray Dryer and Rolf Faye-Petersen.....	246
Forbidden regions produced by two parallel dipoles. S. H. Levine, A. Bhattacharjee, and R. Lepper.....	654
Alfvén waves and induction drag on long cylindrical satellites. C. K. Chu and R. A. Gross.....	2209
Earth as an occulting disk for study of solar EUV emission heights. S. O. Kastner and C. L. Wolff (TN).....	1096
Comment on "Geomagnetically trapped radiation." Philippe A. Clavier (TC).....	384

SPACE SCIENCES

Optimum conical bodies for grazing hyperbolic entry. Alvin Seiff and Michael E. Tauber.....	61
Nonplanar earth-to-moon trajectories in the restricted three-body problem. P. A. Lagerstrom and J. Kevorkian.....	149
Asymptotically optimum two-impulse transfer from lunar orbit. P. Gunther.....	346
TELSTAR orbit prediction method-accuracy comparison with other orbit prediction methods. Anthony G. Lubow.....	361
Integration with universal variables. Edward T. Pitkin.....	531
Linearized solutions for a circular orbit perturbed by tesseral harmonics. Charles Sheffield.....	688
Some considerations for a simplified orbiting general relativity experiment. Ronald D. Palamara.....	1036
Optimal free-space fixed-thrust trajectories using impulsive trajectories as starting iteratives. Morris Handelsman.....	1077
Lunar satellite orbit determination by a classical binary star method. Richard E. Bateman, Joseph N. Benezra, and Frank J. Placek.....	1287
Choosing trajectory parameters to maximize mission probability of success. Walter F. Denham and John J. Mohan.....	1293
Necessary conditions for optimal single impulse transfer. H. Gardner Moyer.....	1405
An analytical study of the impulsive approximation. Howard M. Robbins.....	1417
A computational method for the optimization of multistage ballistic systems. M. W. Alford and C. W. Lear.....	1668
Effect on surface thermal properties of calibrated exposure to micro-meteoroid environment. Herman Mark, Ralph D. Sommers, and Michael J. Mirtich.....	1811
Ground tracks of earth-period (24-hr) satellites. Peter Bielkowicz.....	2190
Ascent or descent from satellite orbit by low thrust. Yun Y. Shi and Martin C. Eckstein.....	2203
Selection of data weights for determining orbits with biased sensors. George H. Myers (TN).....	705
Family of consecutive collision earth-to-moon trajectories. David A. Pierce and E. Myles Standish Jr. (TN).....	709
Representation of the Lagrangian multipliers for coast periods of optimum trajectories. Peter R. Hempel (TN).....	729
Determination of mean elements for Vinti's satellite theory. N. L. Bonavito (TN).....	740
Non-two-body reference orbit for Encke's method. P. R. Escobal (TN).....	930
Matching planetocentric and heliocentric low-acceleration trajectories. Sam W. Wilson Jr. and John J. Miller (TN).....	932
On time-dependent coverage areas of comsats in elliptic orbits. Iwao Sugai (TN).....	1108

Effects of eddy-current damping on satellite attitude stability. Peter W. Likins and Richard L. Columbus (TN).....	1123
Use of K -orthogonality for the inversion of state transition matrices. W. R. Davis (TN).....	1125
Approximate atmospheric entry trajectories on a cylindrical planet. Paul D. Arthur and Bruce E. Baxter (TN).....	1436
Gravity torque effects. T. R. Kane and T. R. Robe (TN).....	1454
An asymptotic solution for optimum power limited orbit transfer. T. N. Edelbaum (TN).....	1491
Comments on "An analytic solution for entry into planetary atmospheres." Ali Haasan Nayfeh (TC).....	758
Reply by author to A. H. Nayfeh. S. J. Citron (TC).....	758
Equations of motion for the variable mass system. William T. Thomson (TC).....	766
Errata: "Nonplanar earth-to-moon trajectories in the restricted three-body problem." P. A. Lagerstrom and J. Kevorkian (TC).....	960
More results on solar influenced libration point motion. Walter T. Feldt and Yechiel Shulman. (TC).....	1501
Errata: "Extension of second-order theory of entry mechanics to oscillatory entry solutions." W. H. T. Loh (TC).....	1696

SPACE VEHICLES

Perturbations of repeating groundtrack satellites by tesseral harmonics in the gravitational potential. M. P. Francis, G. S. Gedeon, and B. C. Douglas.....	1281
Effects of energy dissipation on a spinning satellite. T. R. Kane and P. M. Barba.....	1391

STRUCTURAL MECHANICS

A survey of some buckling problems. Bernard Budiansky and John W. Hutchinson (SA).....	1505
Comparative efficiencies of aerospace pressure vessel design concepts. George Gerard (SA).....	2081
A direct numerical analysis method for cylindrical and spherical elastic waves. Pravin K. Mehta and Norman Davids.....	112
Thermoelastic analysis of a solid cone. Donald E. Johnson.....	118
Postbuckling equilibrium of axially compressed circular cylindrical shells. Nicholas J. Hoff, Wayen A. Madsen, and J. Mayers.....	126
Influence of edge conditions on the stability of axially compressed cylindrical shells. B. O. Almroth.....	134
Standing waves in a viscoelastic cylinder case-bonded to a thin shell. L. A. Henry and A. M. Freudenthal.....	313
Effect of axisymmetric imperfections on the buckling of spherical caps under uniform pressure. Gaylen A. Thurston and Francis A. Penning.....	319
Buckling of clamped conical shells under external pressure. Josef Singer.....	328
Pressurized oval cylinders with closely spaced rings. William P. Vafakos, Neil Nissel, and Joseph Kempner.....	338
Further comparison of elasticity and shell theory solutions. Jerome M. Klosner and Howard S. Levine.....	467
Structural efficiency of orthotropic cylindrical shells subjected to axial compression. Norris F. Dow and B. Walter Rosen.....	481
Dynamic response of a cylindrical shell: Two numerical methods. Donald E. Johnson and Robert Greif.....	486
Dynamic stability of cylindrical shells. M. P. Bieniek, T. C. Fan, and L. M. Lackman.....	495
Thermally induced vibrations of thin nonshallow spherical shells. H. Kraus.....	500
Dynamic buckling estimates. John W. Hutchinson and Bernard Budiansky.....	525
Supersonic flutter of circular cylindrical shells subjected to internal pressure and axial compression. Mervyn D. Olson and Y. C. Fung.....	858
Oscillatory pressures in an idealized boundary layer with application to cylinder flutter. William J. Anderson.....	865
Influence of stiffener eccentricity and end moment on stability of cylinders in compression. C. Stuhlmeyer, A. DeLuzio, and B. Almroth.....	872
On dynamic snap buckling of shallow arches. John S. Humphreys.....	878
Static and dynamic effects of eccentric stiffening of plates and cylindrical shells. John A. McElman, Martin M. Mikulas Jr., and Manuel Stein.....	887
Effect of heterogeneity on the stability of composite cylindrical shells under axial compression. James Tsai.....	1058
Vibrations of orthotropic cylindrical sandwich shells under initial stress. E. H. Baker and G. Herrmann.....	1063
Axial shear vibrations of a cylinder of decreasing thickness. J. D. Achenbach.....	1233
Role of boundary conditions on flutter of orthotropic panels. Herman L. Bohon and Melvin S. Anderson.....	1241
Snapping of a shallow sinusoidal arch under a step pressure load. Malcolm H. Lock.....	1249
Theoretical considerations of panel flutter at high supersonic Mach numbers. John Dugundji.....	1257
Nonlinear oscillations of a fluttering plate. Earl H. Dowell.....	1267
Destabilizing effect of velocity-dependent forces in nonconservative continuous systems. S. Nemat-Nasser, S. N. Praaad, and G. Herrmann.....	1276
Flutter of infinitely long plates and shells. Part I: Plate. Earl H. Dowell.....	1370
Axial impact of an elastic right conical membrane shell. Harvey M. Berkowitz and Hans H. Bleich.....	1378
On panel vibration damping due to structural joints. E. E. Ungar and J. R. Carbonell.....	1385

Flutter of infinitely long plates and shells. Part II: Cylindrical shell.	Earl H. Dowell	1510
Direct stiffness method analysis of shells of revolution utilizing curved elements.	R. E. Jones and D. R. Strome	*1519
Toward a new snap-through buckling criterion for axially compressed circular cylindrical shells.	Robert M. Jones	1526
Application of generalized constraints in the stiffness method of structural analysis.	Bruce E. Greene	1531
Elastic properties of fiber reinforced composite materials.	J. M. Whitney and M. B. Riley	1537
Effect of spacewise variations in a random load field on the response of a linear system.	Ferdinand P. Beer and Robert J. Ravera	1651
Nonlinear mechanical model for the description of propellant sloshing.	Helmut F. Bauer	1662
A mathematical model of the cyclic stress-strain relationship.	Wilhelm F. Knackstedt	1822
General instability of orthotropically stiffened cylinders under axial compression.	Roger Milligan, George Gerard, and C. Lakshmanan	1906
Stress analysis for elastic response of physically nonlinear solid propellants.	Karl S. Pister and Roger J. Evans	1914
Comparison of elasticity and shell theory solutions for long circular cylindrical shells.	K. T. Sundara Raja Iyengar and C. V. Yogananda	2000
Pseudononlinearity bending analysis of an orthotropic multicell shell structure.	P. E. Wilson, P. W. Rogers, S. N. Dharmarajan, and E. M. Slick	2096
Comparison and evaluation of stiffness matrices.	J. Khanna and R. F. Hooley	2105
On the parametric excitation of a viscoelastic column.	Karl Kent Stevens	2111
Equivalent vibrating systems.	J. Genin, A. L. Sweet, and T. C. Cannon (TN)	171
Measurement of initial geometrical imperfections of cylindrical shells.	Anthony P. Coppa (TN)	172
A stability criterion for panel flutter via the second method of Liapunov.	P. C. Parks (TN)	175
On a Green's function for plate bending.	Richard Roberts (TN)	178
Exact plane strain vibrations of composite hollow cylinders: comparison with approximate theories.	T. Karlsson and R. E. Ball (TN)	179
Axiallysymmetric buckling of a compressed cylindrical shell and an integral relation.	Steven C. Batterman (TN)	186
On material strengths of the hypervelocity impact problem.	William P. Dunn (TN)	535
Spherically blunted cone pressure distributions.	E. F. Bick and J. E. Francis (TN)	547
Stability of axially compressed core-filled cylinders.	T. Myint-U (TN)	552
Prediction of plate vibrations using a consistent mass matrix.	Kanwar K. Kapur (TN)	565
A solution to the Timoshenko beam under a moving force.	Sing-chih Tang (TN)	711
Influence of plasticity correction factor in minimum weight analysis.	Leslie M. Lackman and Robert M. Ault (TN)	713
Effects of edge restraint on the stability of spherical caps.	Leon Ru-Liang Wang (TN)	718
On the adequacy of energy criteria for dynamic buckling of arches.	John S. Humphreys (TN)	921
Stabilization of unstable two-point boundary value problems.	P. F. Jordan and P. E. Shelley (TN)	923
Experiments on dynamic plastic deformation of shallow circular arches.	John S. Humphreys (TN)	926
Equivalent mass matrices for rectangular plates in bending.	J. S. Przemieniecki (TN)	949
Computation of stress resultants from the element stiffness matrices.	James A. Stricklin (TN)	1095
Inertia effects in the dynamic response of a cylindrical shell.	Robert Greif (TN)	1105
An asymptotic analysis for large deflections of pressurized shallow spherical membrane shells.	John N. Rossettos (TN)	1121
Free vibrations of rocket nozzles.	R. A. Newton (TN)	1303
Elastic stability of cylindrical shell reinforced by one or two frames and subjected to external radial pressure.	R. H. MacNeal, A. F. Winemiller, and J. A. Baile (TN)	1431
An analog study of the thermal buckling behavior of thin cylindrical shells.	Bernard Ross (TN)	1437
A proof of the stability of the Houbolt method.	D. E. Johnson (TN)	1450
Influence coefficients for externally pressurized spherical shells.	David Bushnell (TN)	1472
DYNAMIC buckling of cylinders under axial shock tube loading.	John S. Humphreys and Charles Sve (TN)	1477
Calculation of geometric stiffness matrices for complex structures.	J. T. Oden (TN)	1480
Eccentric discontinuities in unsymmetrically loaded shells of revolution.	Ralph M. Verette and R. B. Matthiesen (TN)	1680
Analysis of short cylindrical shells of variable wall thickness.	W. E. Jahaman and O. Hoffman (TN)	1686
Experimental observations of optical radiation associated with hypervelocity impact.	B. Jean (TN)	1854
Buckling of axially compressed cylindrical shells with ring-stiffened edges.	Gerald A. Cohen (TN)	1859
A simple calibration technique for skin friction balances.	J. W. Headley (TN)	1862
Steady-state response of beams supported on nonlinear springs.	A. V. Srinivasan (TN)	1862
Target strength and hypervelocity impact.	D. R. Christman (TN)	1872
Resonance of rods, strings, and torsion members due to cyclic moving loads.	P. G. Kessel and A. L. Schlaack (TN)	1879
Statistical dependence effect of normal mode response.	Robert E. Davis (TN)	2033
Engineering applications of numerical integration in stiffness methods.	Bruce M. Irons (TN)	2035
Dynamic stresses in a thick-walled spherical shell of Voigt material.	L. D. Hankins (TN)	2038
Numerical solutions of nonlinear equations for shells of revolution.	John Meccall (TN)	2041
Nonlinear influence coefficients for a spherical shell with pressure loading.	Peter VanDyke (TN)	2045
Natural vibrations of deep spherical shells.	Dhirendra R. Navaratna (TN)	2056
Computation of stress resultants in finite element analysis.	Dhirendra R. Navaratna (TN)	2058
Further study on the dynamic stability of cylindrical shells.	T. C. Fan (TN)	2063
Improvements on the analysis of shells of revolution by the matrix displacement method.	James A. Stricklin, Dhirendra R. Navaratna, and Theodore H. H. Pian (TN)	2069
A failure law for filamentary composites.	Herbert Becker and George Gerard (TN)	2218
Adjoint systems in nonconservative problems of elastic stability.	S. Nemat-Nasser and G. Herrmann (TN)	2221
Thermal excitations of thin elastic shells.	E. Heer (TN)	2234
On bending of orthotropic sandwich plates.	C. E. S. Ueng and Y. J. Lin (TN)	2239
Tension shell as a membrane.	Peter VanDyke (TN)	2241
Mohr's circle as a phasor transformation.	B. Paul	2253
Comment on "Distributed mass matrix for plate element bending."	Bruce Irons (TC)	189
Comment on "General instability and optimum design of grid-stiffened spherical domes."	Kenneth P. Buchert (TC)	379
Reply by authors to K. P. Buchert.	Robert F. Crawford and David B. Schwartz (TC)	379
Comments on "In-plane vibration of spinning disks."	J. G. Simmonds (TC)	380
Reply by author to J. G. Simmonds.	Ronald L. Huston (TC)	380
Note on the vibrational characteristics of thin-walled shells.	Leslie R. Koval (TC)	571
Comments on "Stresses about a circular hole in a cylindrical shell."	Aleksander Kornecki (TC)	765
Reply by author to A. Kornecki.	Peter VanDyke (TC)	765
Addendum: "Coupled panel/cavity vibrations."	D. J. Ketter (TC)	768
Comment on "Computer analysis of asymmetric free vibrations of ring-stiffened orthotropic shells of revolution."	Edward W. Ross Jr. (TC)	1310
Reply by author to E. W. Ross Jr.	Gerald A. Cohen (TC)	1312
Comments on the analysis of free vibration of rotationally symmetric shells.	Arturo Kalnins (TC)	1497
Reply by author to A. Kalnins.	Gerald A. Cohen (TC)	1498
Compatibility equations for arbitrary orthogonal curvilinear coordinates.	I. S. Tuba (TC)	1695
Conservativeness of a normal pressure field acting on a shell.	Gerald A. Cohen (TC)	1886
Comment on "On dynamic snap buckling of shallow arches."	E. H. Dowell (TC)	1887
Reply by author to E. H. Dowell.	John S. Humphreys (TC)	1888
Effect of modes on plastic buckling of compressed cylindrical shells.	Steven C. Batterman and Lawrence H. N. Lee (TC)	2255
Errata: "Effect of heterogeneity on the stability of composite cylindrical shells under axial compression."	James Tasi (TC)	2257
THERMODYNAMICS AND COMBUSTION		
Effects of dissociation energy and vibrational relaxation on heat transfer.	Henry Tong	14
Effect of injection distribution on combustion stability.	F. H. Reardon, J. M. McBride, and A. J. Smith Jr.	506
Radiant heat-transfer analysis of isothermal diathermanous coatings on a conductor.	John E. Francis and Tom J. Love Jr.	643
Energetics and chemical kinetics of polystyrene surface degradation in inert and chemically reactive environments.	James G. Hansel and Robert F. McAlevy, II	841
Influence of a transverse magnetic field on forced convection liquid metal heat transfer.	R. A. Gardner, K. L. Uherka, and P. S. Lykoudis	848
Ablation in a high shear environment.	Kenneth W. Graves	853
Hypersonic turbulent transpiration cooling including downstream effects.	Lawrence W. Woodruff and George C. Lorenz	969
Film cooling with air and helium injection through a rearward-facing slot into a supersonic air flow.	R. J. Goldstein, E. R. G. Eckert, F. K. Tsou, and A. Haji-Sheikh	981
Laminar arjet mixing and heat transfer: Theory and experiments.	Jerry Grey, Martin P. Sherman, Peter M. Williams, and David B. Fradkin	986
Nonequilibrium anomalies in the development of diffusion flames.	Paul M. Chung, F. E. Fendell, and J. F. Holt	1020
Temperature distribution within a particle during evaporation.	Jean M. Parks, C. M. Ablow, and Henry Wise	1032
Approximate closed solutions for detonation parameters in condensed explosives.	Morton H. Friedman	1182
Pressure wave generation in particle-fueled combustion systems: I. Parametric study.	C. W. Busch, A. J. Lademan, and A. K. Oppenheim	1638
A theory for ignition and deflagration of fuel drops.	Richard L. Peskin and Henry Wise	1646
Heat transfer in nonequilibrium dissociated hypersonic flow with surface catalysis and second-order effects.	William H. Caron	1704
Radiative cooling in transparent shock layers of wedges and cones.	D. B. Olfe	1734

Formation of detonation waves in flowing hydrogen-oxygen and methane-oxygen mixtures. Loren E. Bollinger, Gary C. Smith, Frederick J. Tomazic, and Rudolph Edes.....	1773	Heat transfer to particles in shock-heated gases. Michael Arthur Nettleton (TN).....	939
Detonability of hydrogen-oxygen mixtures in large vessels at low initial pressures. A. J. Laderman.....	1784	Use of the method of integral relations for the determination of the convective heat flux to a re-entry body. W. C. Kuby (TN).....	947
Protection of graphite from oxidation at 2100°C. J. M. Criscione, H. F. Volk, and A. W. Smith.....	1791	Transfer behind detonations in H ₂ -O ₂ mixtures. M. Siegel and T. S. David (TN).....	1089
Heat of pyrolysis of resin in silica-phenolic ablators. Michael Ladacki, Janet V. Hamilton, and Samuel N. Cooh.....	1798	Effect of nonperfect isolation on the temperature of metal surfaces on satellites. R. D. Sommers and H. Mark (TN).....	1092
Bidirectional reflectance characteristics of rough, sintered-metal, and wire-screen surface systems. L. M. Herold and D. K. Edwards.....	1802	Effect of water vapor on H ₂ -O ₂ detonations. B. F. Kerkam and E. K. Dabora (TN).....	1101
Oxidation and ablation characteristics of tantalum in a hyper-thermal environment. Billy W. Marshall.....	1809	Criterions for self-similar solutions to radiative flow. James J. Der (TN).....	1107
Influence of combustion parameters on instability in solid propellant motors. Part II: Nonlinear analysis. John C. Friedy and Eugene E. Petersen.....	1817	Turbulent heat-transfer and skin-friction measurements on porous cone with air injection at high Mach numbers. Richard P. Fogaroli and Alan R. Saydah (TN).....	1116
Boundary-layer turbulence measurements with mass addition and combustion. C. E. Wooldridge and R. J. Murzy.....	1932	Radiative transfer for parallel streams of radiating gases. Y. C. Whang (TN).....	1451
Theoretical and experimental investigation of the compressible free mixing of two dissimilar gases. Coleman duP. Donaldson and K. Evan Gray.....	2009	Measurement of the thermal parameter $(ek)^{1/2}$ for clear fused quartz. Leonard Bogdan (TN).....	1477
An aerothermochemical analysis of solid propellant combustion. Frederick L. Schuyler and T. Paul Torda.....	2017	Radiative cooling of a uniform gas flow. Richard H. C. Lee (TN).....	1846
Measurement of the heat transfer to a two-dimensional hypersonic inlet ramp. Widen Tabskoff and James D. McDonel (TN).....	2171	Approximate solution to the flat plate thermometer problem. John A. Fillo (TN).....	1876
Heat capacity and the Lewis number of a reacting gas. Roger A. Svehlik and Richard S. Brokaw (TN).....	153	Mass effect on blast wave theory. Tatsuo Yamanaka (TN).....	2047
Transmission of detonation waves through orifices. Benedict H. K. Lee, John H. Lee, and Romas Knystautas (TN).....	182	Blunt cone laminar friction drag. Ivan Stern (TN).....	2051
Blunt body experiments with central injection. A. F. Gollnick Jr. (TN).....	365	Surface distortion of the molten layer in the axisymmetric stagnation region. Yasuhiko Aihara (TN).....	2068
An approximate analysis of thermal conduction and radiative transport in the stagnation-point shock layer. Robert M. Nerem (TN).....	374	Some observations on reduction of turbulent boundary-layer heat transfer in nozzles. L. H. Back, P. F. Massier, and R. F. Cuffel (TN).....	2226
Radiative heat-flux potential for a nongrey gas. S. C. Traugott (TN).....	539	An integral approach to transient charring ablators problems. D. B. Adarkar and L. B. Hartsook (TN).....	2246
Effect of variations in the coefficient of thermal expansion upon thermal stress. John Minardi (TN).....	541	Comments on "Simplified solutions for ablation in a finite slab." Andrzej Wortman (TC).....	760
Radiation from conical surfaces with nonuniform radiosity. R. P. Bobeo (TN).....	542	Reply by author to A. Wortman. Ning Hsing Chen (TC).....	760
Reduction of data from thin-film heat-transfer gages: A concise numerical technique. W. J. Cook and E. J. Felderman (TN).....	544	Comment on "Review of theoretical investigations on effect of heat transfer on laminar separation." K. O. W. Ball (TC).....	761
Interpretation of recovery-temperature measurements at low Reynolds numbers. C. Forbes Dewey Jr. (TN).....	561	Comment on "Prediction of adiabatic wall temperatures in film-cooling systems." Geoffrey J. Sturgess (TC).....	763
Influence of calorimeter surface treatment on heat-transfer measurements in arc-heated test streams. Ernest L. Winkler and Robert E. Sheldahl (TN).....	567	A note of caution on the use of catalytic probes. W. P. Thompson and R. A. Hartunian (TC).....	957
A note concerning the effective emittance of certain grooved surfaces. Gary A. McCue (TN).....	715	Comment on "Transport properties of hydrogen." S. B. Schneiderman (TC).....	959
Convective heat transfer in planetary gases. Joseph G. Marvin and George S. Deiwert (TN).....	721	Comments on "New methods in heat flow analysis." D. J. Johns (TC).....	1151
Perturbation solutions in the differential analysis of radiation interactions with conduction and convection. C. L. Tien and M. M. Abu-Romia (TN).....	727	Comment on "Simplified solutions for ablation in a finite slab" D. B. Adarkar (TC).....	1495
Shock-flame interaction in a cylindrical chamber. John H. Lee, Benedict H. K. Lee, and Romas Knystautas (TN).....	732	Reply by author to D. B. Adarkar. Ning Hsing Chen (TC).....	1496
Transpiration cooling in an arc-jet environment. L. Wolf Jr., H. J. Obremski, and W. J. Christian (TN).....	736	Comments on heat induced vibrations of elastic beams, plates, and shells. William C. Lyons (TC).....	1502
Hybrid rocket combustion regression rate model. Eugene Miller (TN).....	747	Erratum: "Ablation in a high shear environment." Kenneth W. Graves (TC).....	1696
	752	Comments on "Criteria for self-similar solutions to radiative flow." K. C. Wang (TC).....	1887
GENERAL			
		On the fundamental frequency of a four point-supported square elastic plate. W. K. Tao (TN)	733

